



US Army Corps  
of Engineers  
Seattle District



WASHINGTON STATE  
DEPARTMENT OF  
ECOLOGY

# Joint Public Notice

## Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

### US Army Corps of Engineers

Regulatory Branch

Post Office Box 3755

Seattle, WA 98124-3755

Telephone (206) 764-6912

Attn: Rebecca McAndrew, Project Manager

### WA Department of Ecology

SEA Program

Post Office Box 47600

Olympia, WA 98504-7600

Telephone (360) 407-7298

Attn: Penny Kelley, Federal Permit Coordinator

**Public Notice Date:** June 25, 2007

**Expiration Date:** July 24, 2007

**Reference No.:** NWS-2007-470-SOD

**Name:** WA State Dept of Transportation

SR 539 Ten Mile Road to Badger Road

(SR 546)

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the United States as described below and shown on the enclosed drawings.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

**APPLICANT:** Washington State Dept. of Transportation

Mr. Ben Brown

Post Office Box 330310

Mail Stop NB82-138

Seattle, Washington 98133-9710

Telephone: (206) 440-4528

**LOCATION:** In Wiser Lake, Fishtrap Creek, Duffner Creek, and the Nooksack River and wetlands and ditches tributary to those water bodies and additionally to Four Mile Creek at City of Lynden and Whatcom County, Washington.

**WORK:** The project would widen 6.76 miles of State Route (SR) 539 between Ten Mile Road and Badger Road (SR 546). The majority of the highway would become 4-lanes divided with a 12 foot median that has a cable guardrail. Through the City of Lynden there would be a continuous 2-way left turn lane instead of a median. Emergency access, breaks in the cable guardrail, would be provided at King Tut Road, Beard Road, and Bartlett Road. Roundabouts would be constructed at Ten Mile Road, Pole Road, Wiser Lake Road, River Road, and Badger Road. The project involves widening the existing Nooksack South Overflow and Nooksack North Overflow bridges, replacing the existing Fishtrap Creek bridge with a larger bridge, and adding four new bridges on Wiser Lake, Nooksack River, Nooksack South Overflow, and Nooksack North Overflow.

The work would fill 1.52 acres in 13 wetlands along the project corridor (Table 1). Indirect wetland impacts total 0.05 acre and temporary wetland impacts total 2.21 acres. The wetland impacts are to forested (less than 0.01 acre), scrub-shrub (0.24 acre), and emergent (1.31 acre) habitat. Category I impacts are less than 0.01 acre, Category III impacts are 1.39 acres, and Category IV impacts are 0.13 acre. Temporary wetland impacts totaling 1.18 acre for construction access would be restored following construction. Impacts also include fill in open water at Wiser Lake



and two of the 13 wetlands mentioned above and are 0.98 acre. At Wiser Lake, 0.031 acre would be shaded and 1.18 acre would be temporarily disturbed during construction. Permanent stream impacts occur only at Duffner Creek and are 0.02 acre. Shading impacts due to new bridge construction at Fishtap Creek are 0.02 acre. Temporary stream impacts total 0.02 acre at the Nooksack River, Fishtap Creek, and Duffner Creek. Permanent wetland buffer impacts total 3.30 acres and temporary buffer impacts are 2.26 acres. The majority of the wetland buffer impacts are to herbaceous vegetation, regularly disturbed by residential, agricultural, and highway maintenance activities. Permanent stream buffer impacts total 0.62 acre and temporary buffer impacts are 0.27 acre. The majority of the stream buffer impacts are shrub, but several large trees along the Nooksack River would be removed. If issued, this permit would be valid for five years. Ditch impacts total 0.010 acre.

Table 1. Wetland, open water, and stream impacts for the SR 539 Ten Mile Road to Badger Road (SR 546) project.

Water of U.S.	Wetland Category	USFWS Classification <sup>a</sup>	Impact (acres)						
			Direct	Indirect	Temporary	Direct Buffer	Temporary Buffer	Open Water	Shading
Wetland 1	III	PEM	0.006	0	0.018	0.041	0.031	N/A	0
Wetland 2	IV	PEM	0.030	0	0	N/A	N/A	N/A	N/A
Wetland 3	III	PEM	0.007	0	0.001	0.160	0.026	N/A	0
Wetland 5	III	PFO/PEM	0.006	0	0.008	0.273	0.078	N/A	0
Wetland 6	I	LEM/LAB	0	0	0	0.003	0	N/A	0
Wetland 7	III	PEM/LEM	0.184	0.040	0	0.082	0.064	N/A	0
Wetland 8	I	PFO	0.003	0	0	0.257	0.134	N/A	0
Wetland 9	III	PSS	0.075	0	0.090	0.113	0.023	N/A	0
Wetland 10	III	PEM	0.182	0	0.029	0.138	0.014	N/A	0
Wetland 11	III	PEM	0.703	0.010	1.004	1.109	1.141	N/A	0
Wetland 12	IV	PSS	0.099	0	0	N/A	N/A	N/A	N/A
Wetland 13	III	PSS	0.053	0	0.019	0.251	0.254	N/A	0
Wetland 14	III	PEM	0.157	0	0.006	0.874	0.474	0.210	0
Wetland 15	III	PSS	0.021	0	0	N/A	N/A	0.079	N/A
Wetland 16	IV	PEM	0	0	0	0.003	0.021	N/A	0
Wiser Lake	N/A	L1UBH/ L2ABH	0	0	1.184	0	0	0.689	0.031
Nooksack River	N/A	R2UBH	0	0	0.002	0.417	0.205	N/A	0
Fishtap Creek	N/A	R2UBH	0	0	0.004	0.110	0.024	N/A	0.018
Duffner Creek	N/A	R4UBH	0.023	0	0.012	0.090	0.038	N/A	0
Ditch D05	N/A	N/A	<0.001	0	0	N/A	N/A	N/A	0
Ditch D15	N/A	N/A	0.010	0	0	N/A	N/A	N/A	0

<sup>a</sup>U.S. Fish and Wildlife Service Cowardin classification: P=palustrine; AB=aquatic bed; EM=emergent; SS=scrub-shrub; FO=forested; L=lacustrine; L1=lacustrine, limnetic; L2=lacustrine, littoral; R2=riverine, lower perennial; R4=riverine, intermittent; UB=unconsolidated bottom; H=permanently flooded

**PURPOSE:** The purpose of the project is to improve safety and accommodate existing and projected traffic volumes.

**ADDITIONAL INFORMATION** – The functions provided by the impacted wetlands include flood storage, water quality improvement, erosion control and shoreline stabilization, organic matter production and export, general habitat suitability, amphibian habitat, aquatic invertebrate habitat, wetland-associated mammal habitat, wetland-associated bird habitat, and general fish habitat.

Copies of this public notice which have been mailed or otherwise physically distributed feature project drawings in black and white. The electronic version features those drawings in color, which we think more accurately communicates the scope of project impacts. To access the electronic version of this public notice, go to the Seattle District's web page at <http://www.nws.usace.army.mil/> and scroll down the alphabetical listing of District elements,



and click on "Regulatory" and then "Regulatory – Permits" for the Seattle District's Regulatory homepage. Select the prominently displayed "Public Notices" heading and a list of recently-issued public notices will appear, in chronological order of the date of issuance. Select and view the listing for this project.

**MITIGATION:** Washington State Department of Transportation (WSDOT) avoided impacts to wetlands by widening asymmetrically and locating stormwater ponds in primarily upland locations. WSDOT minimized impacts by steepening side slopes and moving stormwater ponds at a given site. Impacts to Wiser Lake were minimized with retaining walls. Direct impacts to stream were avoided by fully spanning the Nooksack River and Fishtrap Creek. Temporary impacts to the Nooksack River were substantially minimized by designing a cantilever system with support structures on land rather than a work trestle.

To compensate for the permanent loss of 1.52 acres and indirect impact of 0.05 acre to wetlands, WSDOT would create 1.62 acres and enhance 3.13 acres of palustrine forested and scrub-shrub wetland along Potter Road. To compensate for the permanent loss of 0.98 acre of open water, WSDOT would enhance 2.54 acres of lacustrine aquatic bed, lacustrine emergent, and palustrine scrub-shrub wetland along the Wiser Lake shoreline. To compensate for buffer impacts along the Nooksack River, WSDOT is restoring and enhancing 0.5 acre of buffer at the proposed bridge crossing.

The proposed wetland mitigation site at Potter Road would expand and enhance an existing riverine wetland from existing herbaceous upland. The wetland mitigation site would improve the flood storage, sediment removal, nutrient and toxicant removal, organic matter production and export, erosion control and shoreline stabilization, general habitat suitability, and native plant richness functions compared to the impacted functions. The proposed plant community would consist of forested and scrub-shrub wetland vegetation. The wetland mitigation site would have 100-foot wide buffer to the south and east boundaries.

The open water mitigation site at Wiser Lake would expand and enhance the lacustrine and palustrine wetland currently disturbed by agriculture activities. The open water mitigation site would improve flood storage, sediment removal, nutrient and toxicant removal, organic matter production and export, erosion control and shoreline stabilization, general habitat suitability, aquatic invertebrate habitat, amphibian habitat, wetland-associated bird habitat, wetland-associated mammal habitat, general fish habitat, and native plant richness functions compared to the impacted functions. The proposed plant community would consist of aquatic bed, emergent, and scrub-shrub wetland vegetation. The mitigation site would also have an 80-foot wide buffer that essentially enhances the existing wetland.

Stormwater treatment would provide enhanced water quality treatment and flow control of new and existing impervious surface in an area currently with minimal treatment. The project is designed to comply with the Washington State Department of Transportation Highway Runoff Manual (2006), which has been approved for use by the Washington State Department of Ecology.

**ENDANGERED SPECIES:** The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat.

WSDOT, as the designated lead agency for ESA consultation, has consulted with the NMFS and the USFWS as required under Section 7 of the ESA. The Corps agrees with their determination that the project may affect, not likely to adversely affect listed species and their designated critical habitat. Concurrence was issued on October 5, 2006, by the NMFS and October 30, 2006, by the USFWS.

**ESSENTIAL FISH HABITAT:** The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or



proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area.

WSDOT, as the designated lead agency for a determination regarding EFH, has consulted with the NMFS. The Corps agrees with their determination that the project will not adversely affect EFH species. Concurrence was issued on October 5, 2006, by the NMFS.

CULTURAL RESOURCES: The District Engineer has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible and other sources of information. An historic properties investigation has been conducted within the permit area. No sites determined eligible for or listed on the National Register of Historic Places were found to exist within the permit area. The District Engineer invites responses to this public notice from Native American Nations or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns with historic properties in the area. This public notice initiates consultation under Section 106 of the National Historic Preservation Act with any Tribe that has information or concerns with historic properties in the proposed permit area.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION – CORPS - The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

EVALUATION—ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.



ADDITIONAL EVALUATION: This proposal is the subject of a Shorelines Substantial Development Permit No. HR2007-00018 and a Shoreline Conditional Use Permit No. SHC2007-00007, being processed by Whatcom County.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether it would be in the public interest to authorize this proposal. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commentor's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

Corps comments: All e-mail comments should be sent to [rebecca.e.mcandrew@usace.army.mil](mailto:rebecca.e.mcandrew@usace.army.mil). Conventional mail comments should be sent to U.S. Army Corps of Engineers, Regulatory Branch, Ms. Rebecca McAndrew, Post Office Box 3755, Seattle, Washington 98124-3755.

Ecology Comments: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA, may do so by submitting written comments to the following address: Department of Ecology, Ms. Penny Kelley, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail to [pkel461@ecy.wa.gov](mailto:pkel461@ecy.wa.gov).

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments:

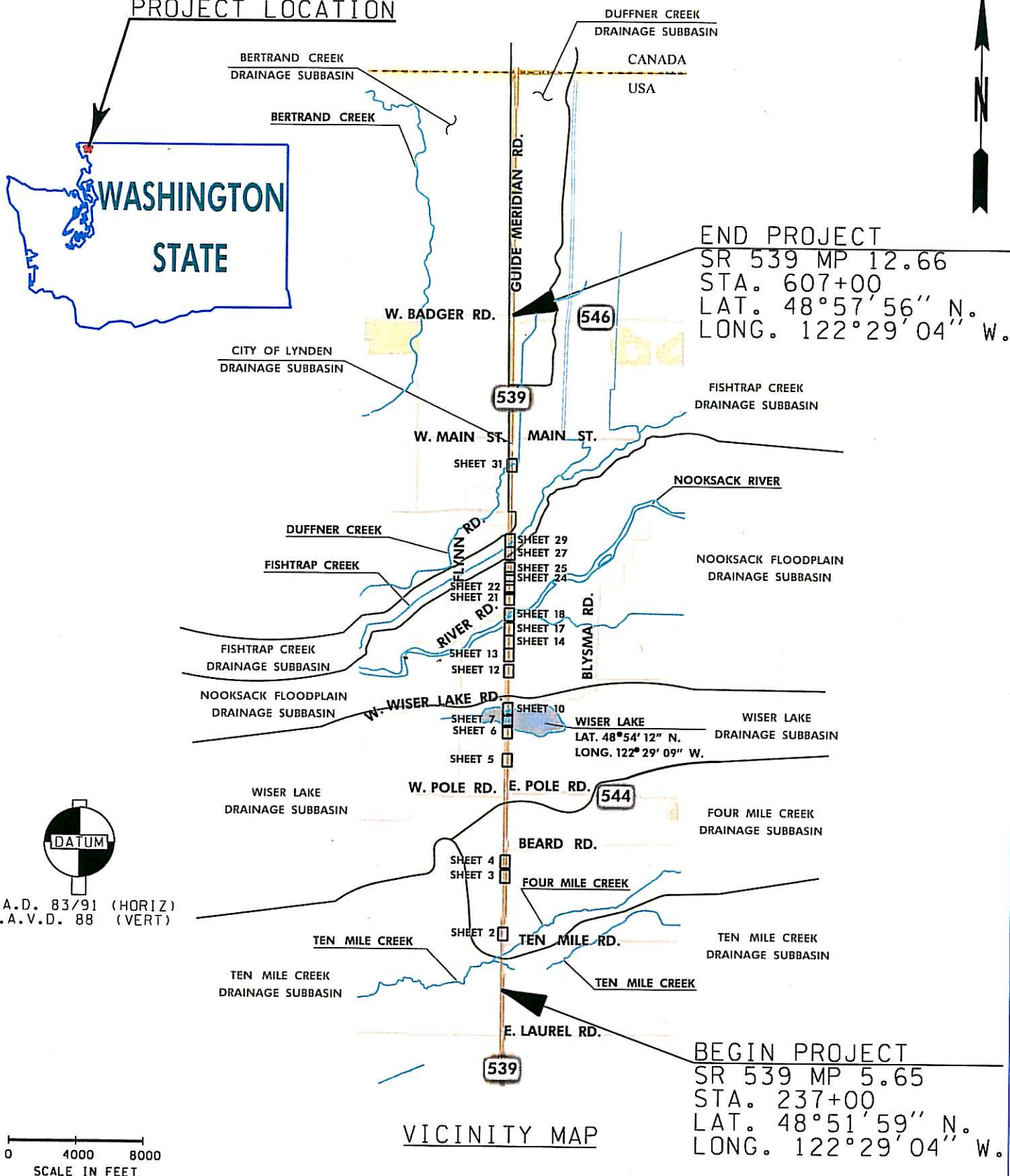
Washington State Dept. of Transportation, NWS-2007-470-SOD

Encl: Figures (42)



T.40N. & T.39N., R.2E. & R.3E., W.M.

# PROJECT LOCATION

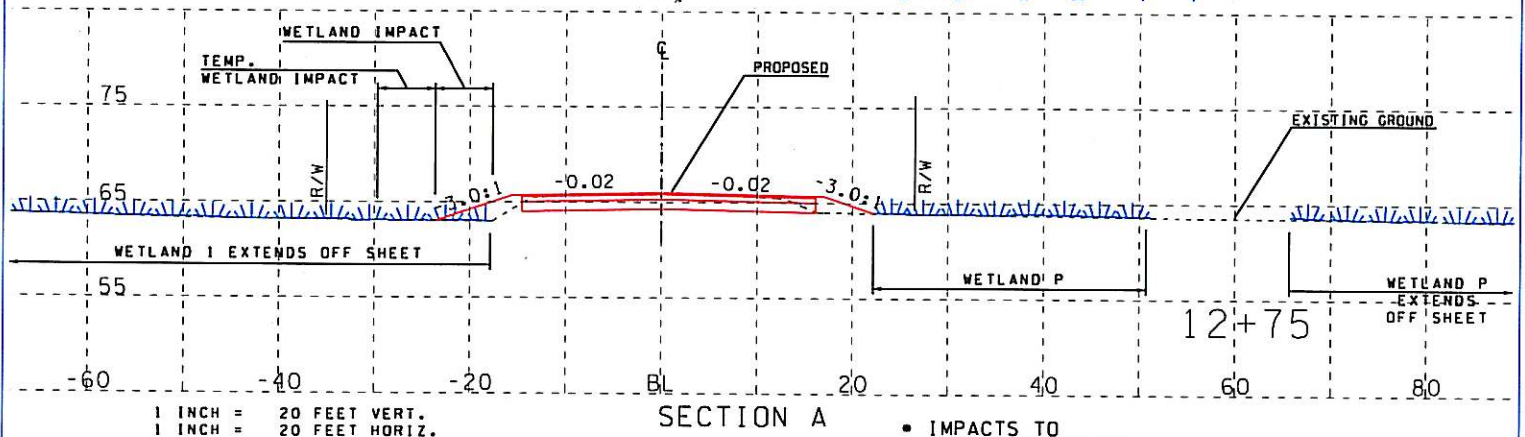
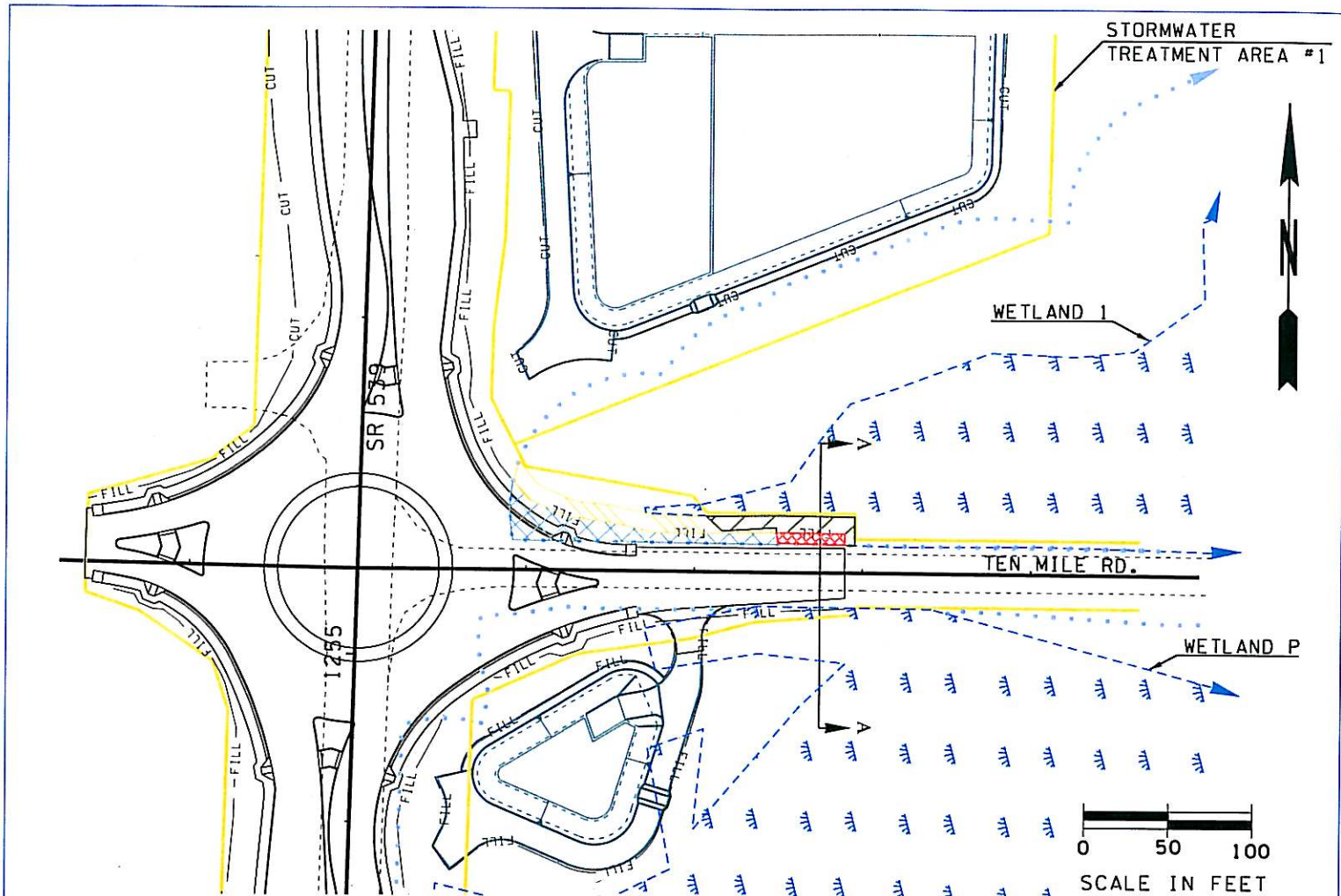


PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN IARPA  
 ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE,  
 NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007

**Washington State**  
**Department of Transportation**  
 SHEET: 1 OF: 42





UNLESS OTHERWISE NOTED EXISTING  
CULVERTS WILL BE ABANDONED IN PLACE.

#### LEGEND

	DIRECT WETLAND IMPACT		WETLAND BUFFER		EXISTING DITCH
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		STREAM BUFFER
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		PROPOSED EDGE OF PAVEMENT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		RIGHT OF WAY
	OPEN WATER IMPACT		IMPACTED STREAM		STORM SEWER LINE
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		CUT/FILL LINE
					EXISTING CULVERT

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007

- IMPACTS TO WETLAND P TO BE MITIGATED FOR IN THE SR 539 HORTON RD. TO TENMILE RD. PROJECT

- WETLAND AREA CALCULATED FROM AERIAL MAPS AND GIS INFORMATION
- > WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE

QUANTITIES ARE IN ACRES

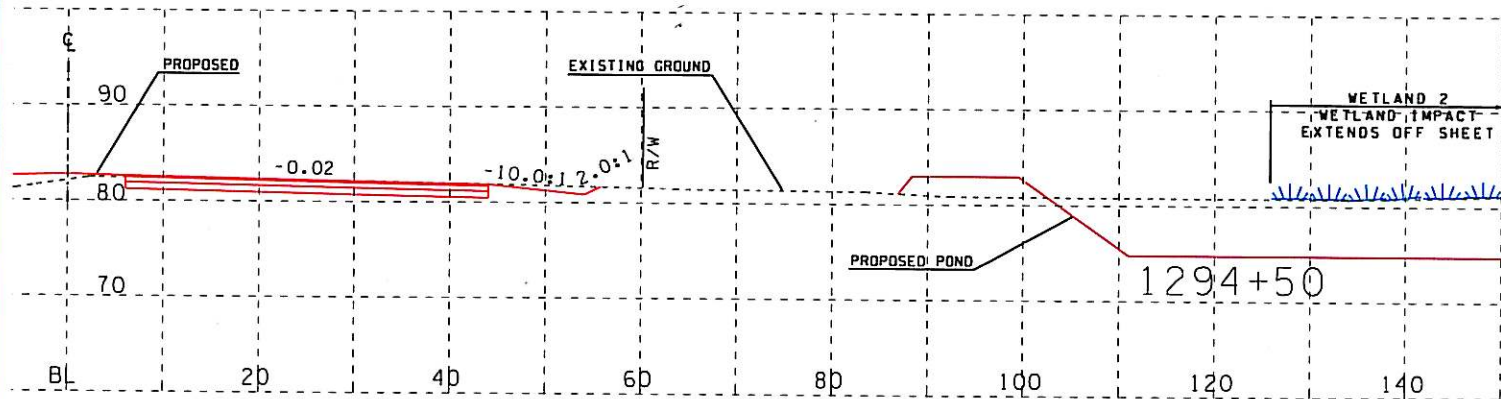
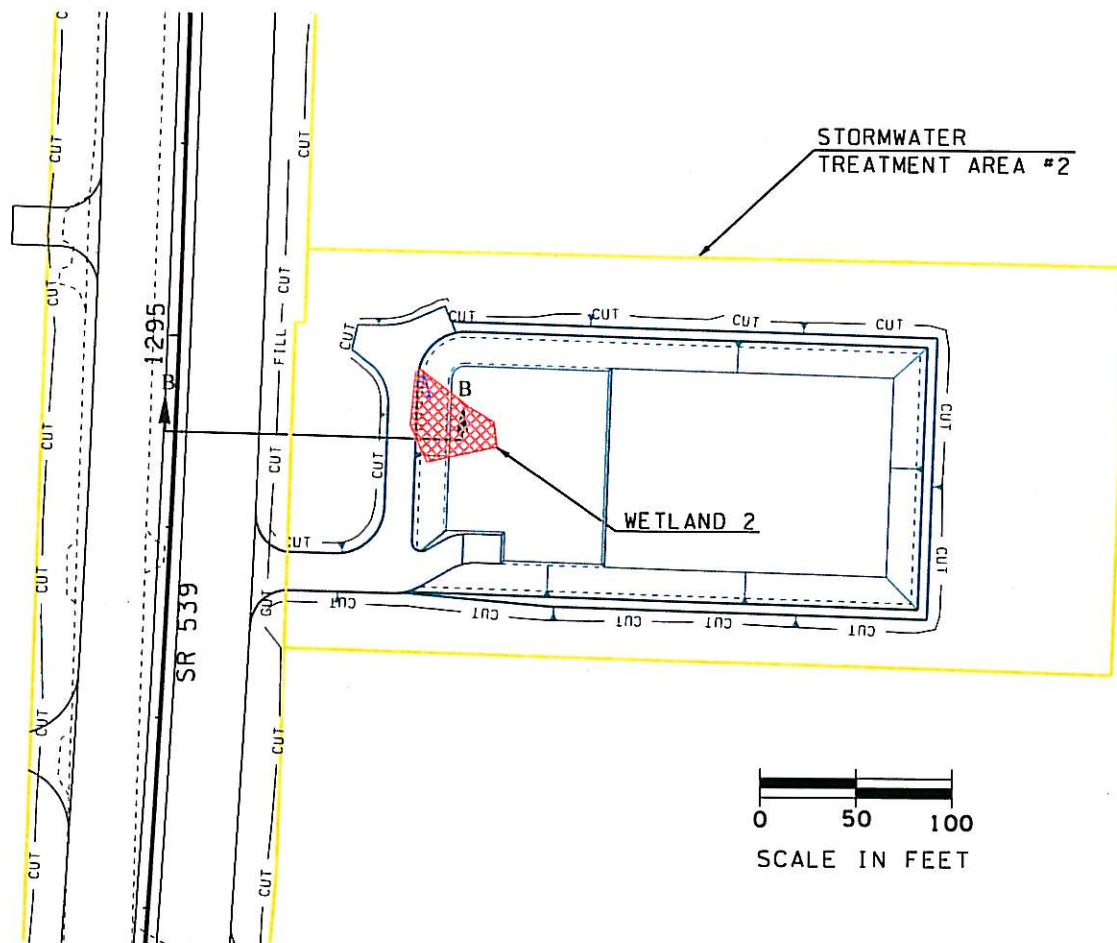
WETLAND NO.	P*	I
WETLAND AREA	7.060	1.980**
DIRECT WETLAND IMPACT	•	0.006
TEMP. WETLAND IMPACT	•	0.018
INDIRECT WETLAND IMPACT		0
DOE CATEGORY	II	III
% DIRECT WETLAND IMPACT		<1%
BUFFER AREA		>1.051
BUFFER IMPACT	•	0.041
TEMP. BUFFER IMPACT	•	0.031



Washington State  
Department of Transportation

SHEET: 2 OF: 42





1 INCH = 20 FEET VERT.  
1 INCH = 20 FEET HORIZ.

### SECTION B

UNLESS OTHERWISE NOTED EXISTING CULVERTS  
WILL BE ABANDONED IN PLACE.

LEGEND	
	DIRECT WETLAND IMPACT
	INDIRECT WETLAND IMPACT
	TEMP. IMPACTED WETLAND
	WETLAND BUFFER IMPACTS
	TEMP. BUFFER IMPACTS
	OPEN WATER IMPACT
	TEMP. DISTURBANCE
	WETLAND
	WETLAND BOUNDARY
	PERMANENT SHADING IMPACT
	PERMANENT STREAM BUFFER IMPACT
	TEMP. STREAM BUFFER IMPACT
	IMPACTED STREAM
	TEMP. IMPACTED STREAM
	WETLAND BUFFER
	EXISTING DITCH
	STREAM BUFFER
	PROPOSED EDGE OF PAVEMENT
	EXISTING EDGE OF PAVEMENT
	RIGHT OF WAY
	STORM SEWER LINE
	CUT/FILL LINE
	EXISTING CULVERT

QUANTITIES ARE IN ACRES	
WETLAND NO.	2
WETLAND AREA	0.030
DIRECT WETLAND IMPACT	0.030
TEMP. WETLAND IMPACT	0
INDIRECT WETLAND IMPACT	0
DOE CATEGORY	IV
% DIRECT WETLAND IMPACT	100%
BUFFER AREA	N/A
BUFFER IMPACT	N/A
TEMP. BUFFER IMPACT	N/A

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,

NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007

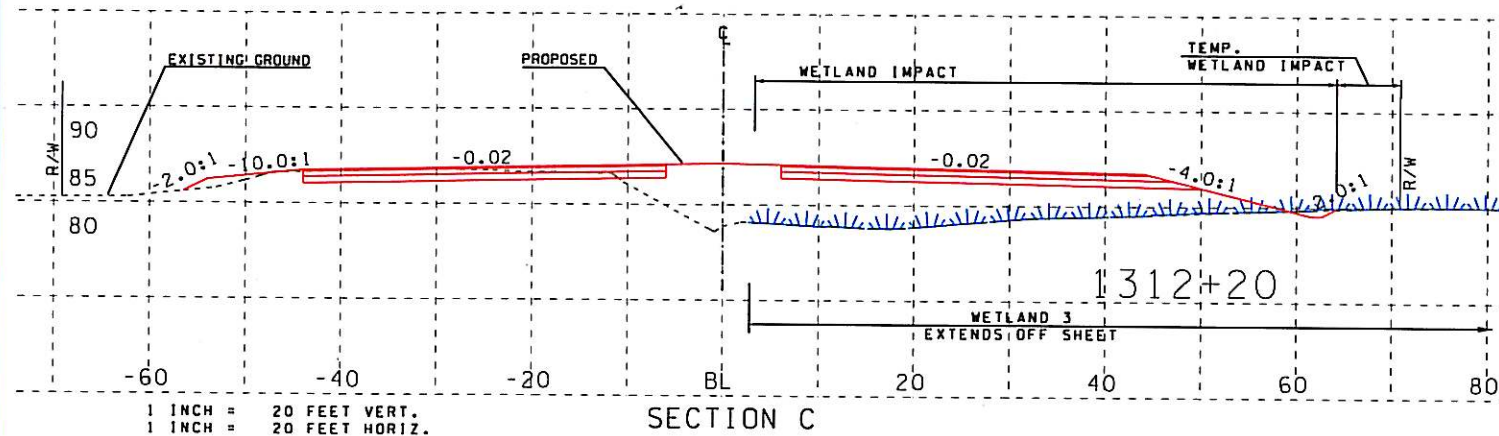
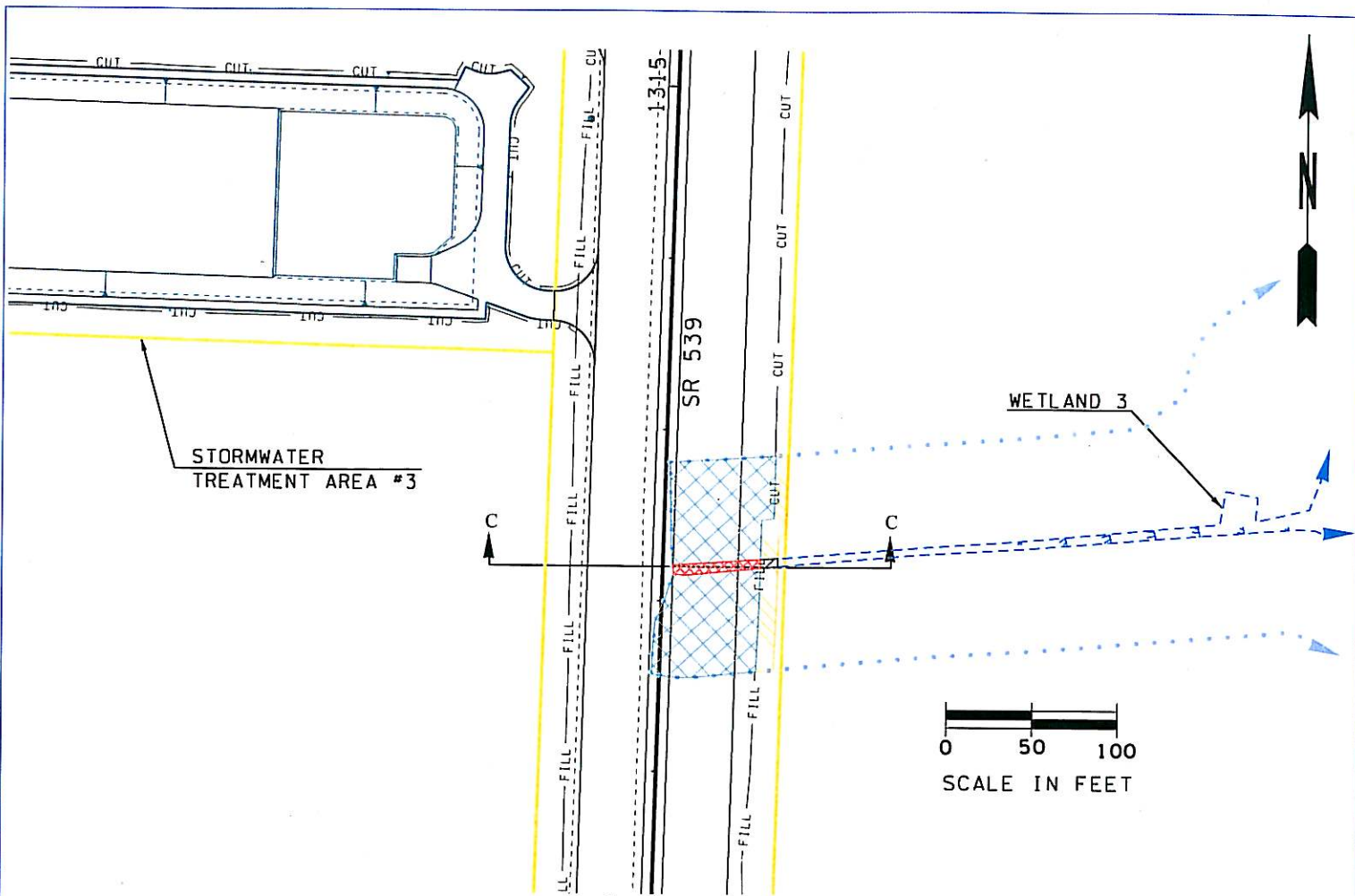


Washington State  
Department of Transportation

SHEET: 3

OF: 42





UNLESS OTHERWISE NOTED EXISTING CULVERTS  
WILL BE ABANDONED IN PLACE.

LEGEND	
	DIRECT WETLAND IMPACT
	INDIRECT WETLAND IMPACT
	TEMP. IMPACTED WETLAND
	WETLAND BUFFER IMPACTS
	TEMP. BUFFER IMPACTS
	OPEN WATER IMPACT
	TEMP. DISTURBANCE
	WETLAND
	WETLAND BOUNDARY
	PERMANENT SHADING IMPACT
	PERMANENT STREAM BUFFER IMPACT
	TEMP. STREAM BUFFER IMPACT
	IMPACTED STREAM
	TEMP. IMPACTED STREAM
	WETLAND BUFFER
	EXISTING DITCH
	STREAM BUFFER
	PROPOSED EDGE OF PAVEMENT
	EXISTING EDGE OF PAVEMENT
	RIGHT OF WAY
	STORM SEWER LINE
	CUT/FILL LINE
	EXISTING CULVERT

> WETLAND AREAS EXTEND  
BEYOND DELINEATION.  
AREAS ARE APPROXIMATE

•• WETLAND AREA CALCULATED  
FROM AERIAL MAPS AND  
GIS INFORMATION

QUANTITIES ARE IN ACRES	
WETLAND NO.	3
WETLAND AREA	2.310**
DIRECT WETLAND IMPACT	0.007
TEMP. WETLAND IMPACT	0.001
INDIRECT WETLAND IMPACT	0
DDE CATEGORY	III
% DIRECT WETLAND IMPACT	<1%
BUFFER AREA	>3.545
BUFFER IMPACT	0.160
TEMP. BUFFER IMPACT	0.026

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND  
IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE  
BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA  
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APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

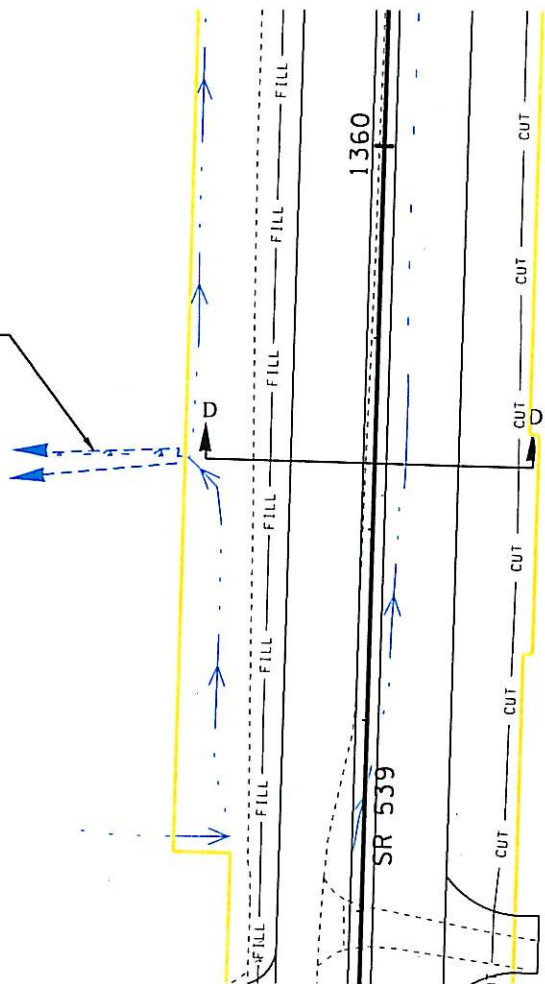
DATE: MAY 22, 2007



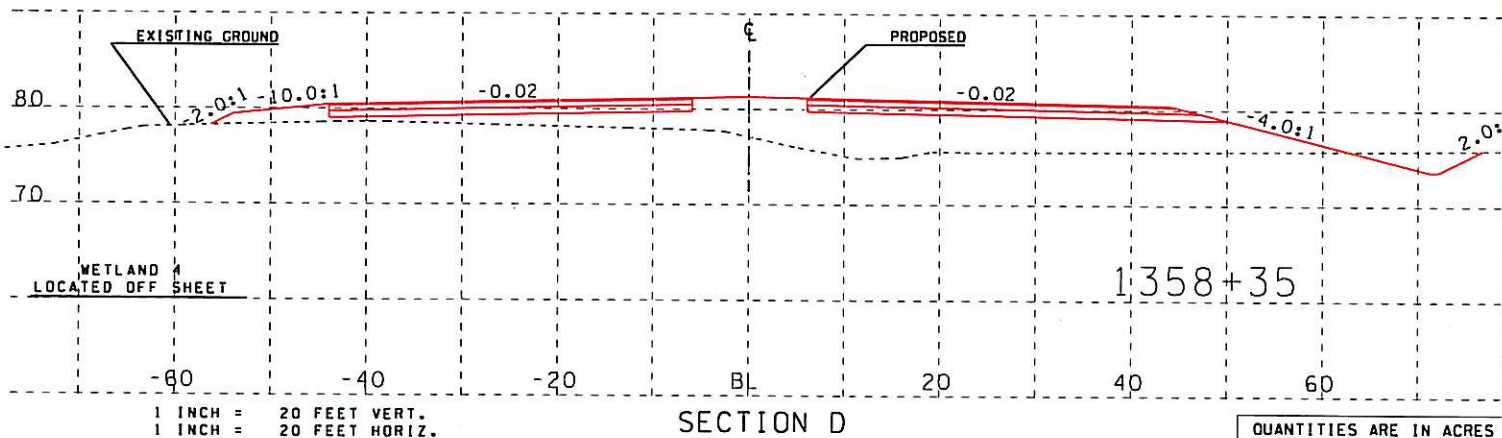
Washington State  
Department of Transportation

SHEET: 4 OF: 42

WETLAND 4  
• (EXEMPT)  
NO IMPACT



0 50 100  
SCALE IN FEET



SECTION D

# LEGEND

	DIRECT WETLAND IMPACT		WETLAND BUFFER		EXISTING DITCH
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		STREAM BUFFER
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		PROPOSED EDGE OF PAVEMENT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		RIGHT OF WAY
	OPEN WATER IMPACT		IMPACTED STREAM		STORM SEWER LINE
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		CUT/FILL LINE
					EXISTING CULVERT

> WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE

• NO JURISDICTIONAL BUFFER

## QUANTITIES ARE IN ACRES

WETLAND NO.	4
WETLAND AREA	>0.016
DIRECT WETLAND IMPACT	0
TEMP. WETLAND IMPACT	0
INDIRECT WETLAND IMPACT	0
DOE CATEGORY	IV
% DIRECT WETLAND IMPACT	0%
BUFFER AREA	0
BUFFER IMPACT	0
TEMP. BUFFER IMPACT	0

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

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REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

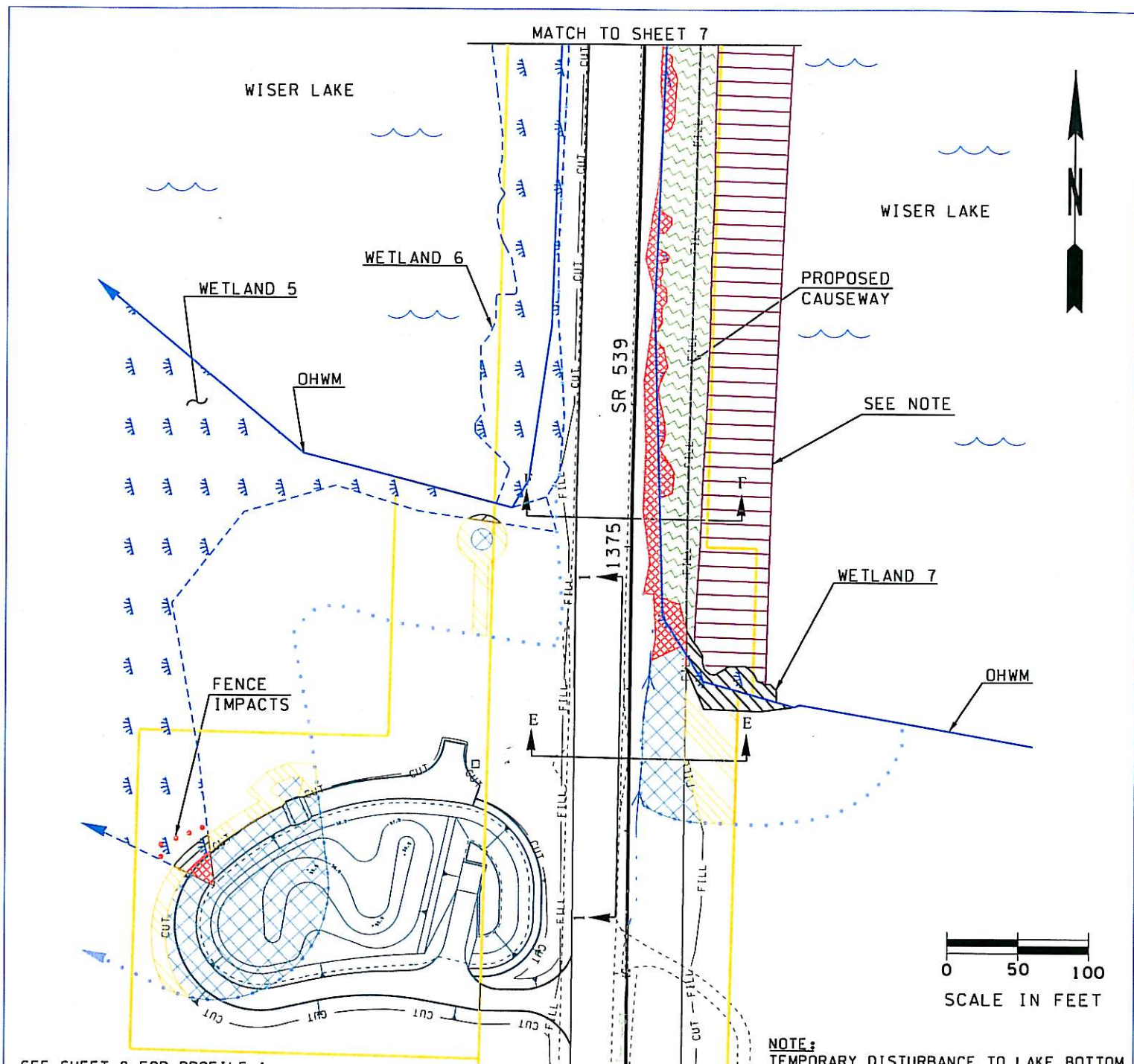
DATE: MAY 22, 2007



Washington State  
Department of Transportation

SHEET: 5 OF: 42





SEE SHEET 8 FOR PROFILE 1

SEE SHEET 8 FOR SECTION E

SEE SHEET 9 FOR SECTION F

> WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE

**NOTE:**  
TEMPORARY DISTURBANCE TO LAKE BOTTOM IS DUE TO DISPLACED PEAT CAUSED BY QUARRY SPALL FILL.

#### LEGEND

	DIRECT WETLAND IMPACT		WETLAND BUFFER		EXISTING DITCH
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		EXISTING DITCH
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		STREAM BUFFER
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		PROPOSED EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	OPEN WATER IMPACT		IMPACTED STREAM		RIGHT OF WAY
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		STORM SEWER LINE
					CUT/FILL LINE
					EXISTING CULVERT

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007

#### QUANTITIES ARE IN ACRES

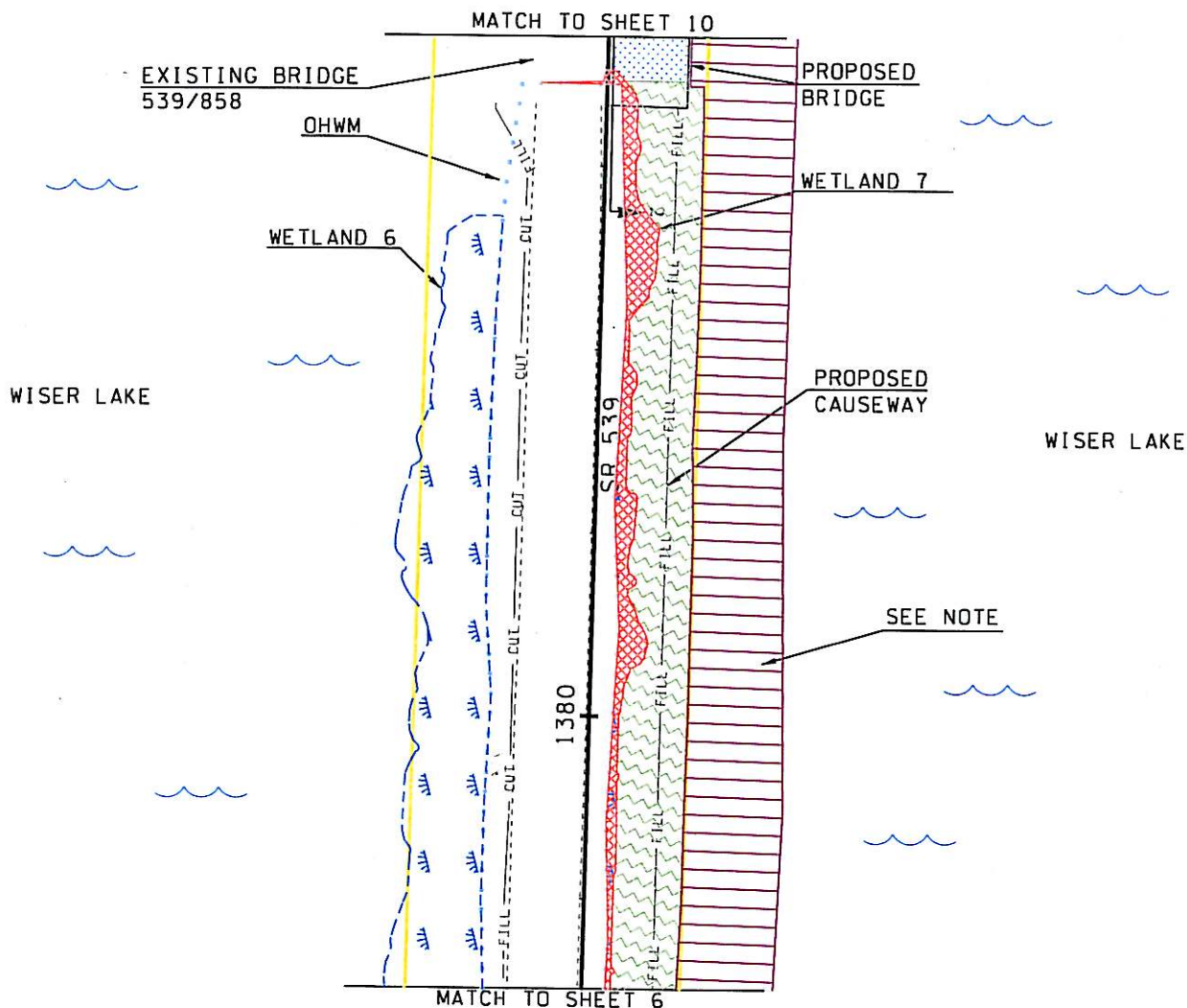
WETLAND NO.	5	6	7	LAKE	WISER LAKE
WETLAND AREA	>21.000	0.731	0.223		
DIRECT WETLAND IMPACT	0.006	0	0.184	OPEN WATER IMPACTS	0.689
TEMP. WETLAND IMPACT	0.008	0	0	SHADING IMPACT	0.031
INDIRECT WETLAND IMPACT	0	0	0.040	IN-WATER FILL	25,000 CY
DOE CATEGORY	III	I	III	TEMP. DISTURBANCE	1.184
% DIRECT WETLAND IMPACT	<1%	0%	82%		
BUFFER AREA	>3.062	0.003	>0.328		
BUFFER IMPACT	0.273	0	0.082		
TEMP. BUFFER IMPACT	0.078	0	0.064		



Washington State  
Department of Transportation

SHEET: 6

OF: 42



SEE SHEET 6 FOR WETLAND 5,  
WETLAND 6, AND  
WISER LAKE IMPACTS

SEE SHEET 11 FOR PROFILE 2

LEGEND			
	DIRECT WETLAND IMPACT		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT
	OPEN WATER IMPACT		IMPACTED STREAM
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM
			EXISTING DITCH
			STREAM BUFFER
			PROPOSED EDGE OF PAVEMENT
			EXISTING EDGE OF PAVEMENT
			RIGHT OF WAY
			STORM SEWER LINE
			CUT/FILL LINE
			EXISTING CULVERT

**NOTE:**  
TEMPORARY DISTURBANCE TO LAKE BOTTOM  
IS DUE TO DISPLACED PEAT CAUSED BY  
QUARRY SPALL FILL.

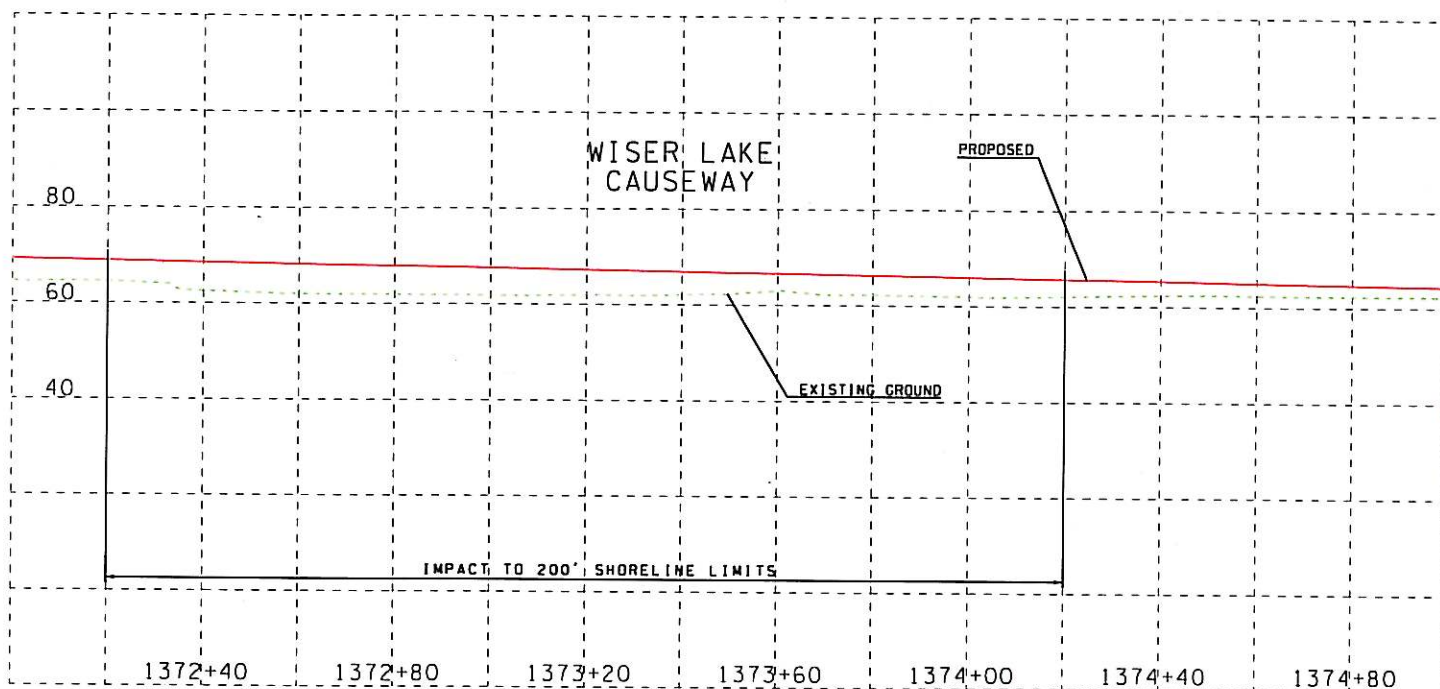
0 50 100  
SCALE IN FEET

**PURPOSE:** INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
**PROPOSED:** WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
**LOCATION:** GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
**DATUM:** N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
**ADJACENT PROPERTY OWNERS:** SEE LIST PROVIDED IN JARPA ATTACHMENT B

**REFERENCE:** NWS-2007-470-SOD  
**APPLICANT:** WSDOT  
**COUNTY:** WHATCOM  
**NEAR:** LYNDEN  
**WATER BODY:** FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
**DATE:** MAY 22, 2007

**Washington State  
Department of Transportation**  
SHEET: 7 OF: 42

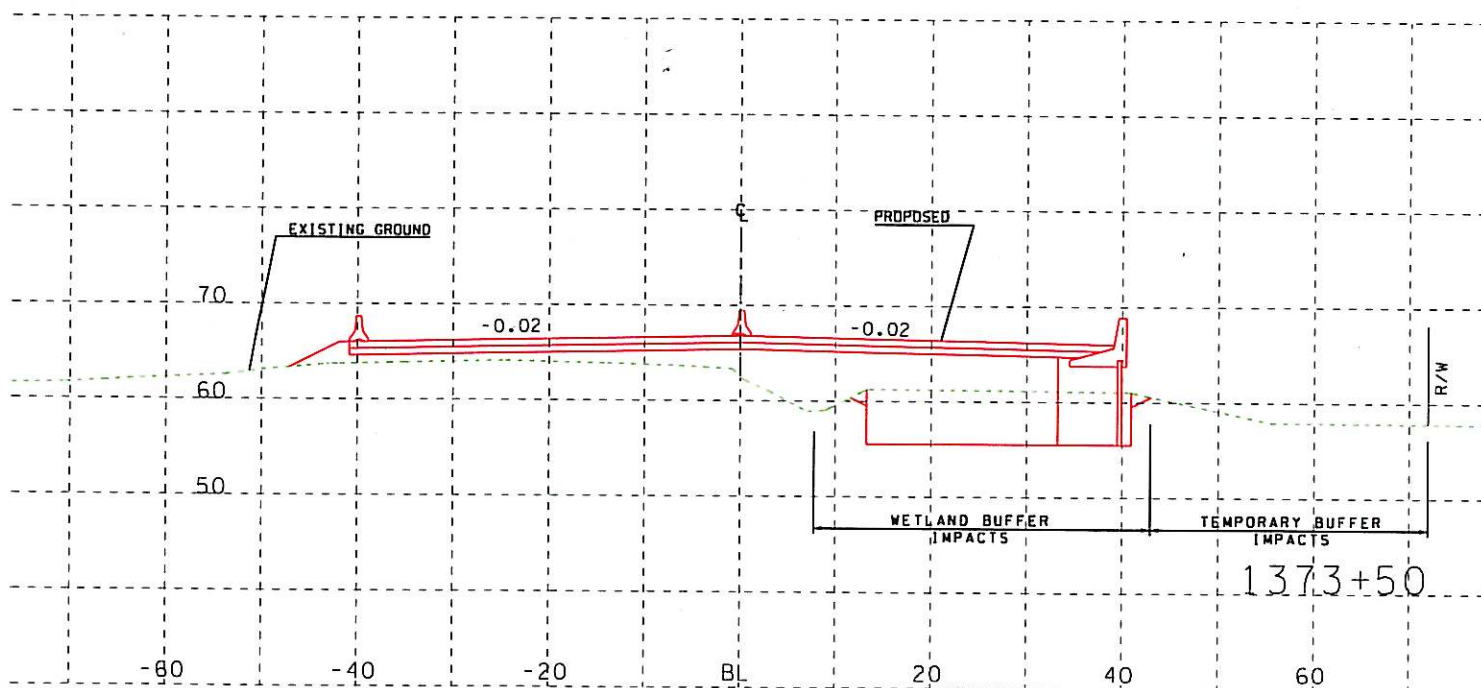




1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.

### PROFILE 1

SEE SHEET 6



1 INCH = 20 FEET VERT.  
1 INCH = 20 FEET HORIZ.

### SECTION E

SEE SHEET 6

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,

NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

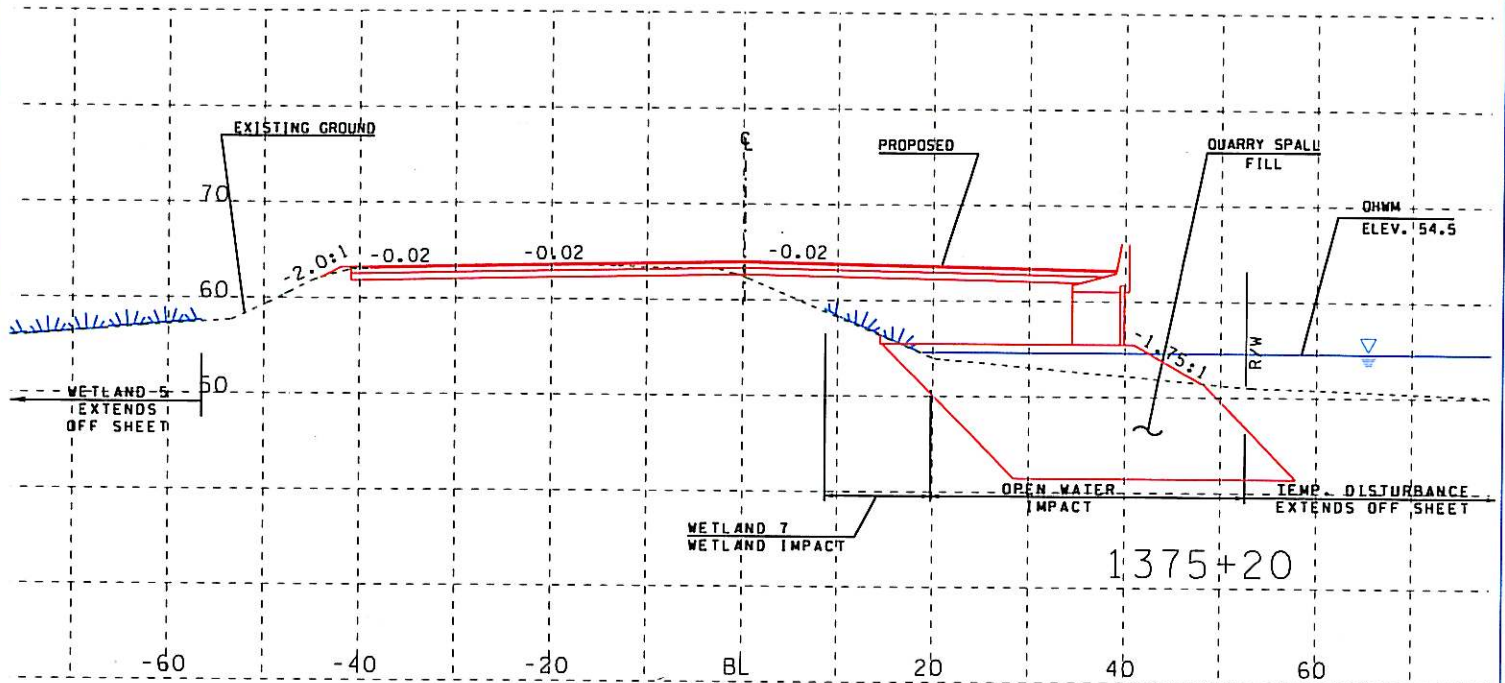
DATE: MAY 22, 2007



Washington State  
Department of Transportation

SHEET: 8

OF: 42



1 INCH = 20 FEET VERT.  
1 INCH = 20 FEET HORIZ.

SECTION F  
SEE SHEET 6

**NOTE:**  
TEMPORARY DISTURBANCE TO LAKE BOTTOM  
IS DUE TO DISPLACED PEAT CAUSED BY  
QUARRY SPALL FILL.

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

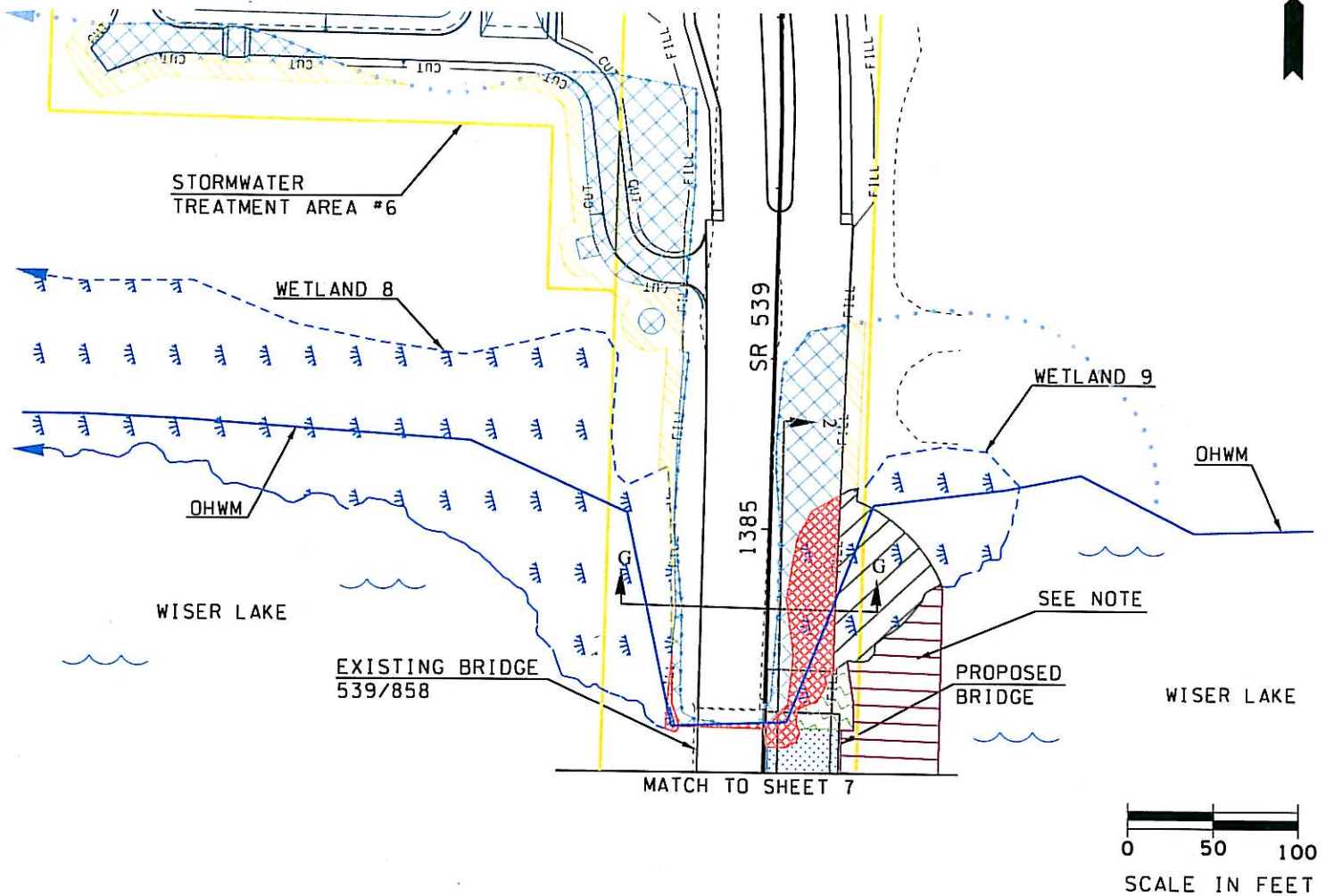
REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007



Washington State  
Department of Transportation

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SEE SHEET 7 FOR WISER LAKE IMPACTS

**NOTE:**  
TEMPORARY DISTURBANCE TO LAKE BOTTOM  
IS DUE TO DISPLACED PEAT CAUSED BY  
QUARRY SPALL FILL.

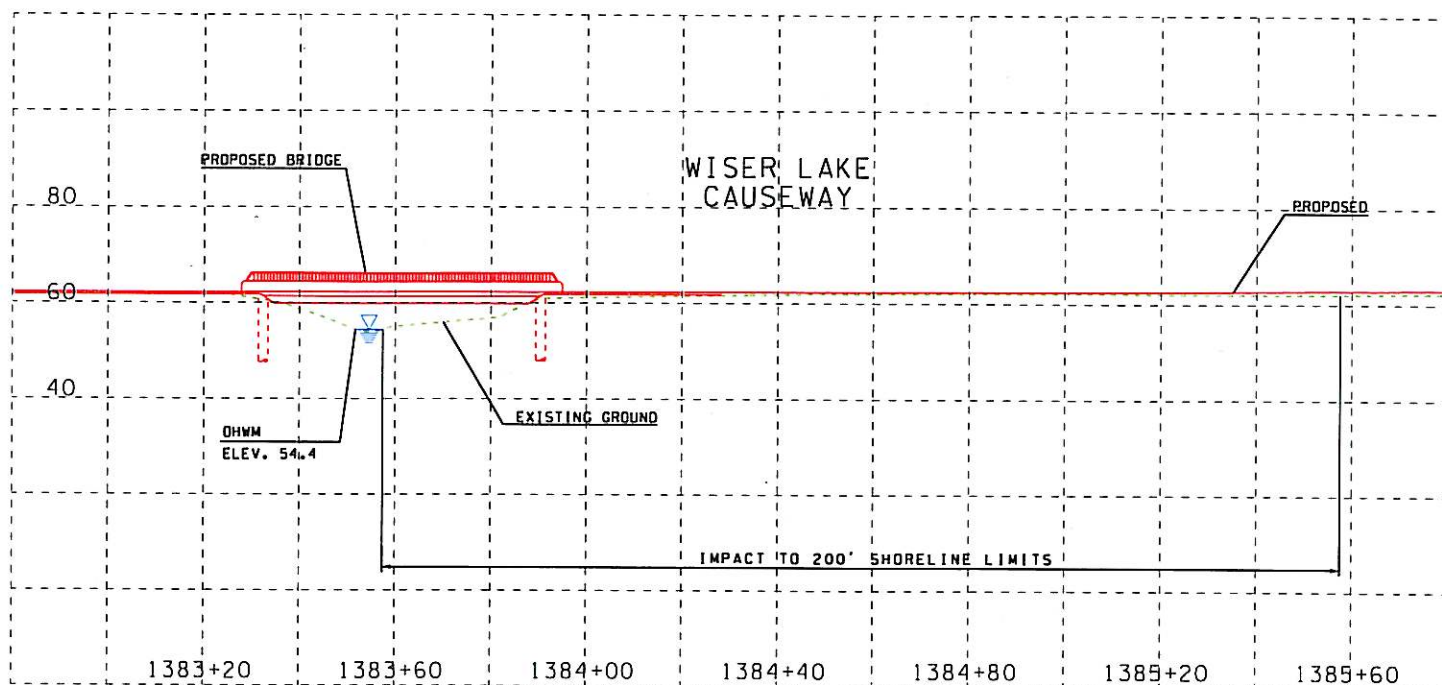
LEGEND			
	DIRECT WETLAND IMPACT		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT
	OPEN WATER IMPACT		IMPACTED STREAM
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM

> WETLAND AREAS  
EXTEND BEYOND  
DELINEATION.  
AREAS ARE  
APPROXIMATE

QUANTITIES ARE IN ACRES		
WETLAND NO.	8	9
WETLAND AREA	>2.284	0.274
DIRECT WETLAND IMPACT	0.003	0.075
TEMP. WETLAND IMPACT	0	0.090
INDIRECT WETLAND IMPACT	0	0
DOE CATEGORY	1	III
% DIRECT WETLAND IMPACT	<1%	27%
BUFFER AREA	>2.633	0.445
BUFFER IMPACT	0.257	0.113
TEMP. BUFFER IMPACT	0.134	0.023

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

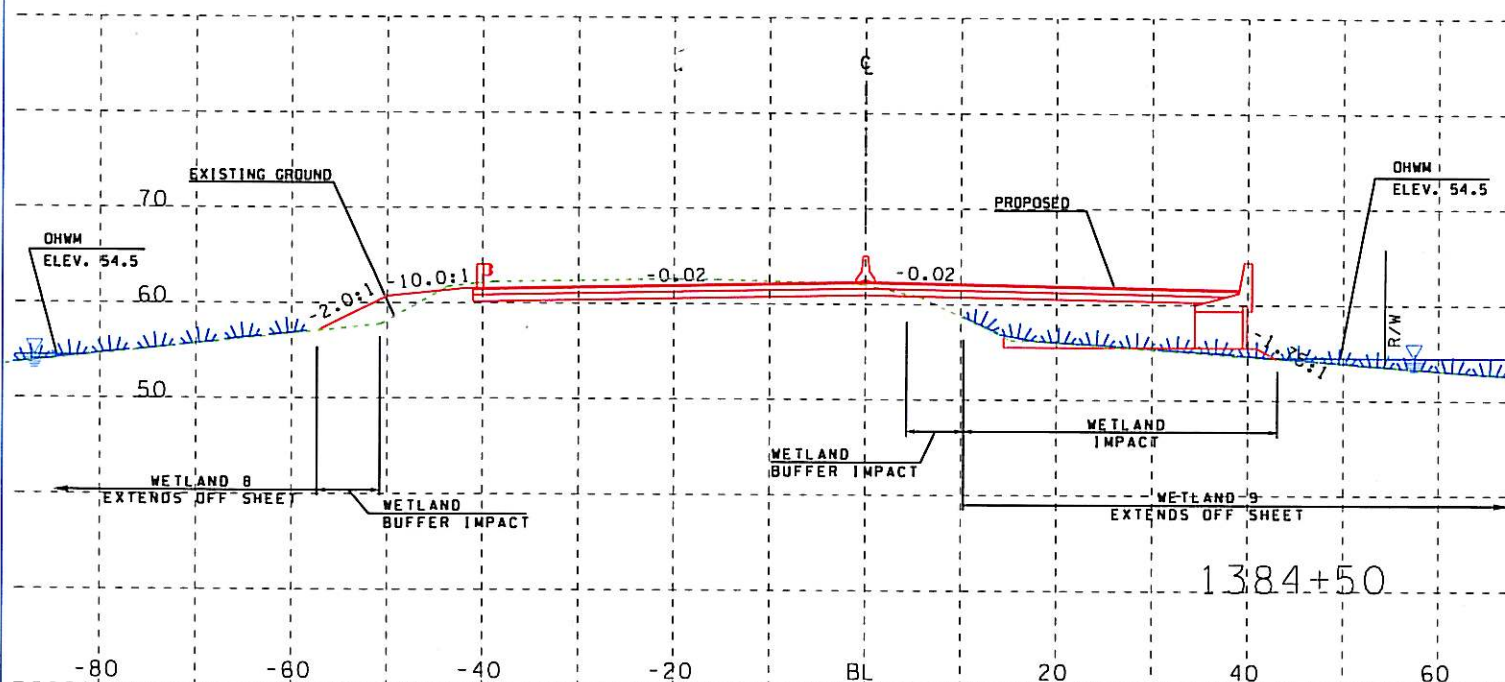
REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007



1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.

### PROFILE 2

SEE SHEETS 7 & 10



1 INCH = 20 FEET VERT.  
1 INCH = 20 FEET HORIZ.

### SECTION G

SEE SHEET 10

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,

NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007



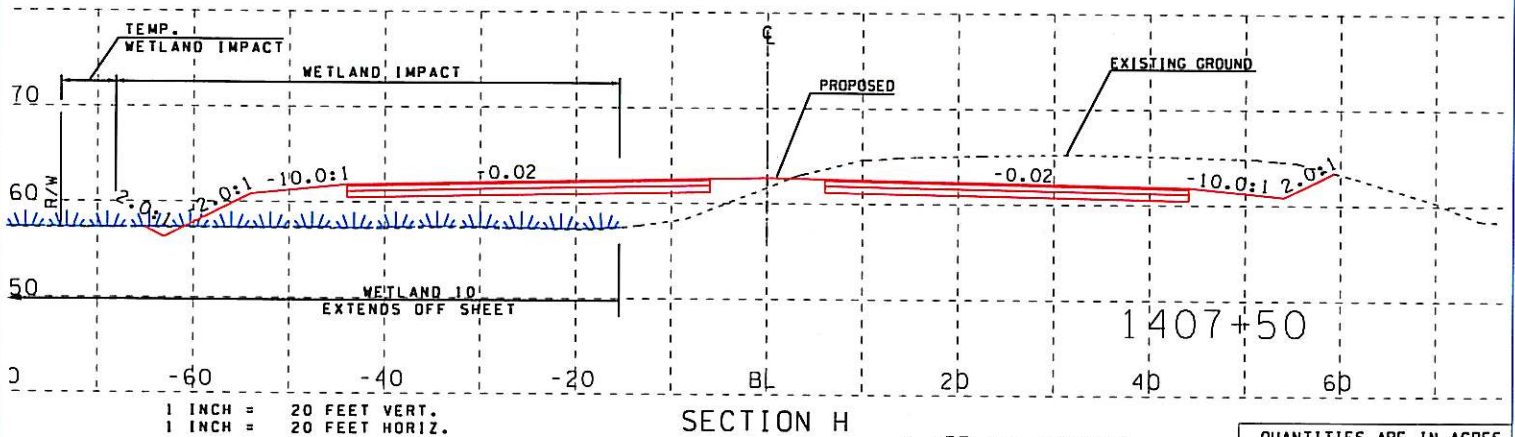
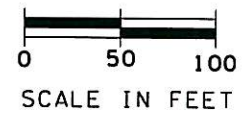
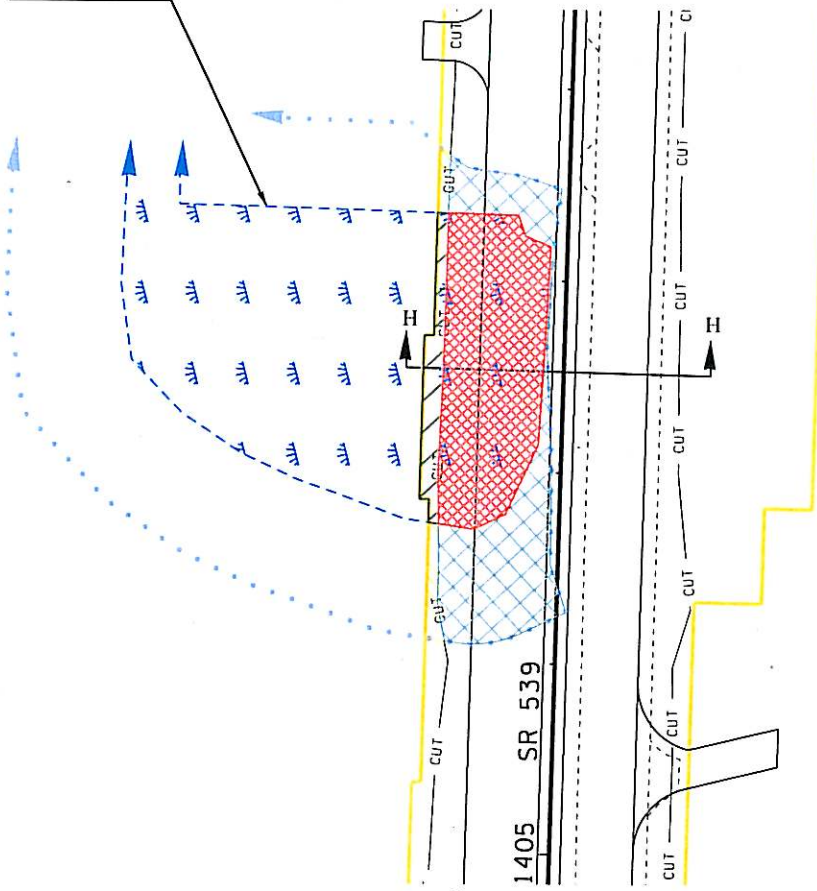
Washington State  
Department of Transportation

SHEET: 11

OF: 42



WETLAND 10



#### LEGEND

	DIRECT WETLAND IMPACT		WETLAND BUFFER		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		EXISTING DITCH
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		STREAM BUFFER
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		PROPOSED EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	OPEN WATER IMPACT		IMPACTED STREAM		RIGHT OF WAY
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		STORM SEWER LINE
					CUT/FILL LINE
					EXISTING CULVERT

- WETLAND EXTENDS BEYOND DELINEATION SO PERCENTS ARE APPROXIMATE.
- WETLAND AREA CALCULATED FROM AERIAL MAPS AND GIS INFORMATION
- WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE

QUANTITIES ARE IN ACRES	
WETLAND NO.	10
WETLAND AREA	2.460**
DIRECT WETLAND IMPACT	0.182
TEMP. WETLAND IMPACT	0.029
INDIRECT WETLAND IMPACT	0
DOE CATEGORY	III
% DIRECT WETLAND IMPACT	7%
BUFFER AREA	>0.756
BUFFER IMPACT	0.138
TEMP. BUFFER IMPACT	0.014

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83/91 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,

NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007



Washington State  
Department of Transportation

SHEET: 12 OF: 42

MATCH TO SHEET 14

PROPOSED  
BRIDGE

EXISTING BRIDGE  
539/859

WETLAND 11

PROPOSED CULVERT  
FOR CONVEYANCE

1420

SR 539

1415

WETLAND 11

0 50 100  
SCALE IN FEET

UNLESS OTHERWISE NOTED  
EXISTING CULVERTS WILL  
BE ABANDONED IN PLACE.

SEE SHEET 16 FOR SECTION I

SEE SHEET 15 FOR PROFILE 3

#### LEGEND

	DIRECT WETLAND IMPACT		WETLAND BUFFER		EXISTING DITCH
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		STREAM BUFFER
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		PROPOSED EDGE OF PAVEMENT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		RIGHT OF WAY
	OPEN WATER IMPACT		IMPACTED STREAM		STORM SEWER LINE
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		CUT/FILL LINE
					EXISTING CULVERT

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: DECEMBER 11, 2006

- WETLAND EXTENDS BEYOND DELINEATION SO PERCENTS ARE APPROXIMATE.
- WETLAND AREA CALCULATED FROM AERIAL MAPS AND GIS INFORMATION
- > WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE

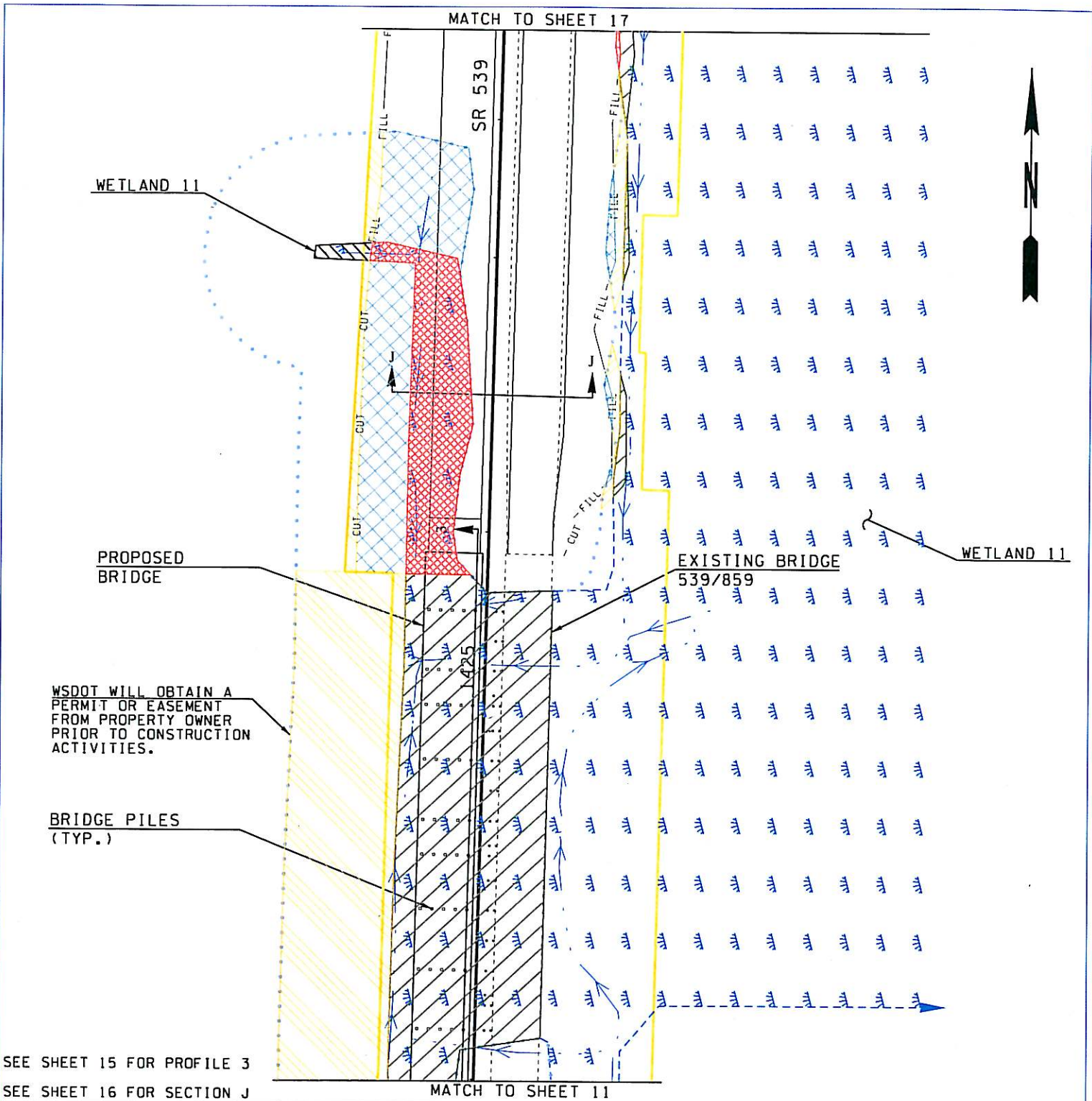
QUANTITIES ARE IN ACRES	
WETLAND NO.	11
WETLAND AREA	11.655**
DIRECT WETLAND IMPACT	0.703
TEMP. WETLAND IMPACT	1.004
INDIRECT WETLAND IMPACT	0.010
DDE CATEGORY	111
% DIRECT WETLAND IMPACT	6%
BUFFER AREA	>7.536
BUFFER IMPACT	1.109
TEMP. BUFFER IMPACT	1.141



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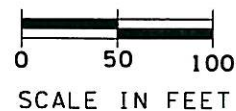
SHEET: 13 OF: 42





SEE SHEET 15 FOR PROFILE 3  
SEE SHEET 16 FOR SECTION J

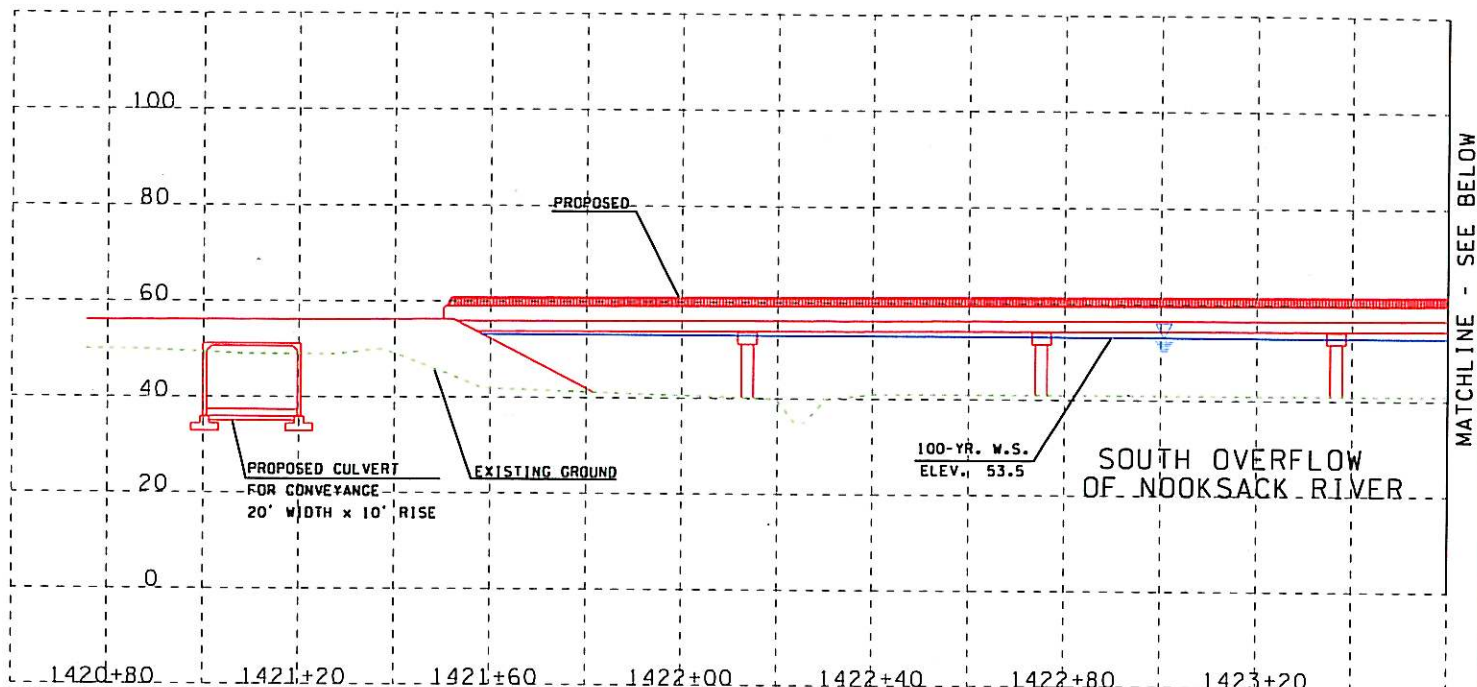
LEGEND			
	DIRECT WETLAND IMPACT		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT
	OPEN WATER IMPACT		IMPACTED STREAM
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM
			EXISTING DITCH
			STREAM BUFFER
			PROPOSED EDGE OF PAVEMENT
			EXISTING EDGE OF PAVEMENT
			RIGHT OF WAY
			STORM SEWER LINE
			CUT/FILL LINE
			EXISTING CULVERT



SEE SHEET 13 FOR WETLAND 11 IMPACTS

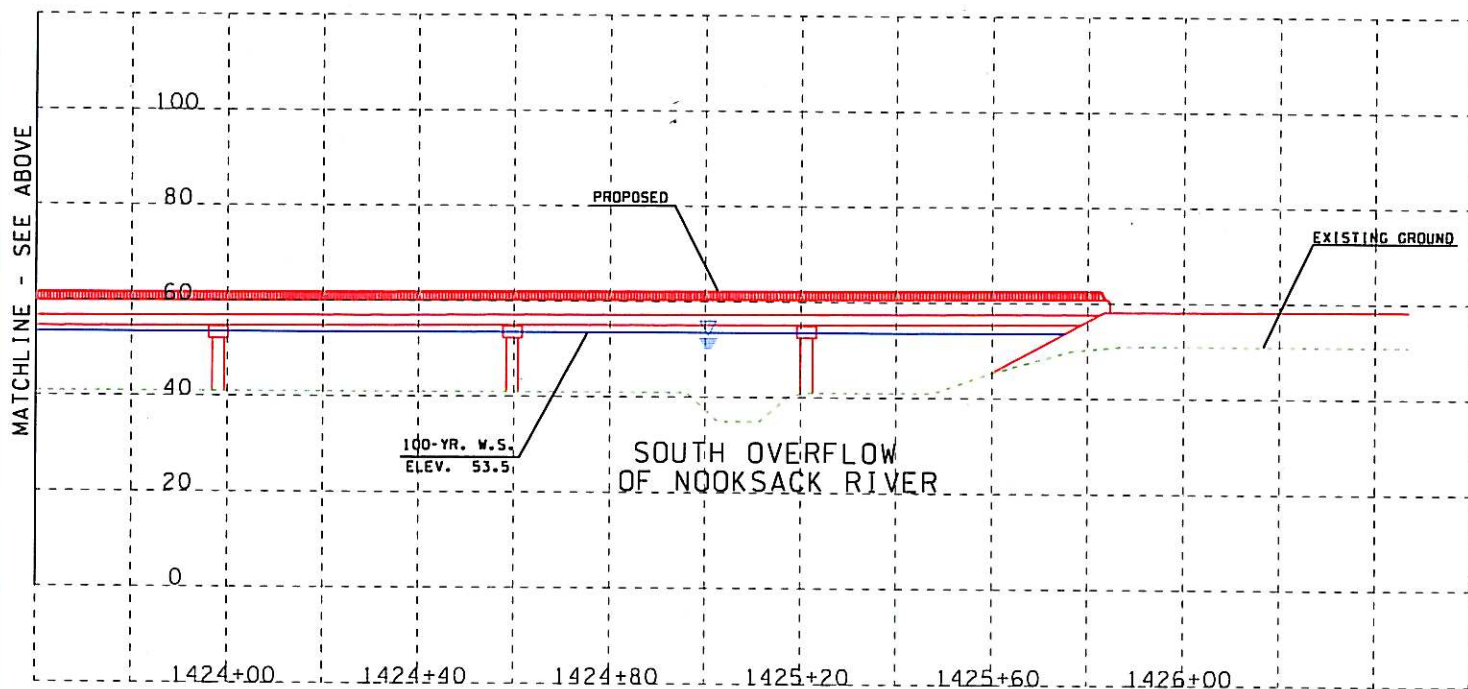
PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007



1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.

PROFILE 3  
SEE SHEETS 13 & 14



1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.

PROFILE 3  
SEE SHEET 13 & 14

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,

NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007

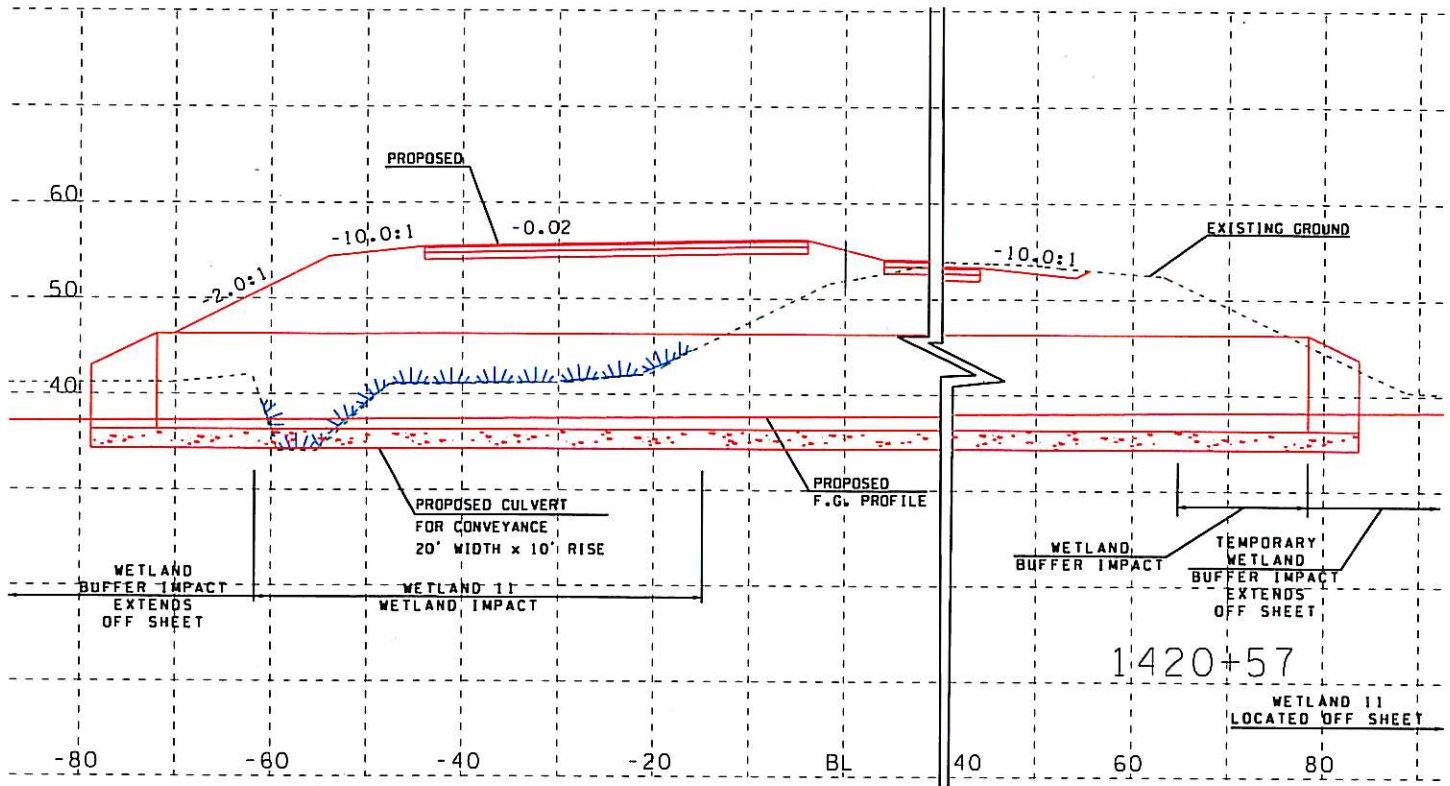


Washington State  
Department of Transportation

SHEET: 15

OF: 42

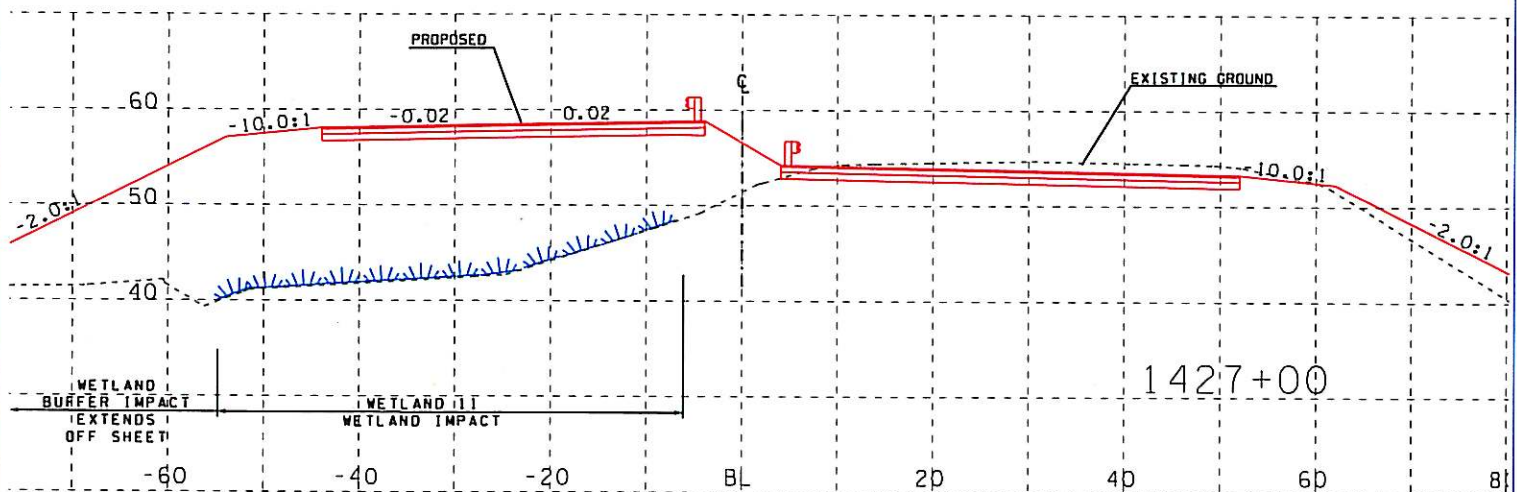




1 INCH = 20 FEET VERT.  
1 INCH = 20 FEET HORIZ.

### SECTION I

SEE SHEET 13



1 INCH = 20 FEET VERT.  
1 INCH = 20 FEET HORIZ.

### SECTION J

SEE SHEET 14

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,

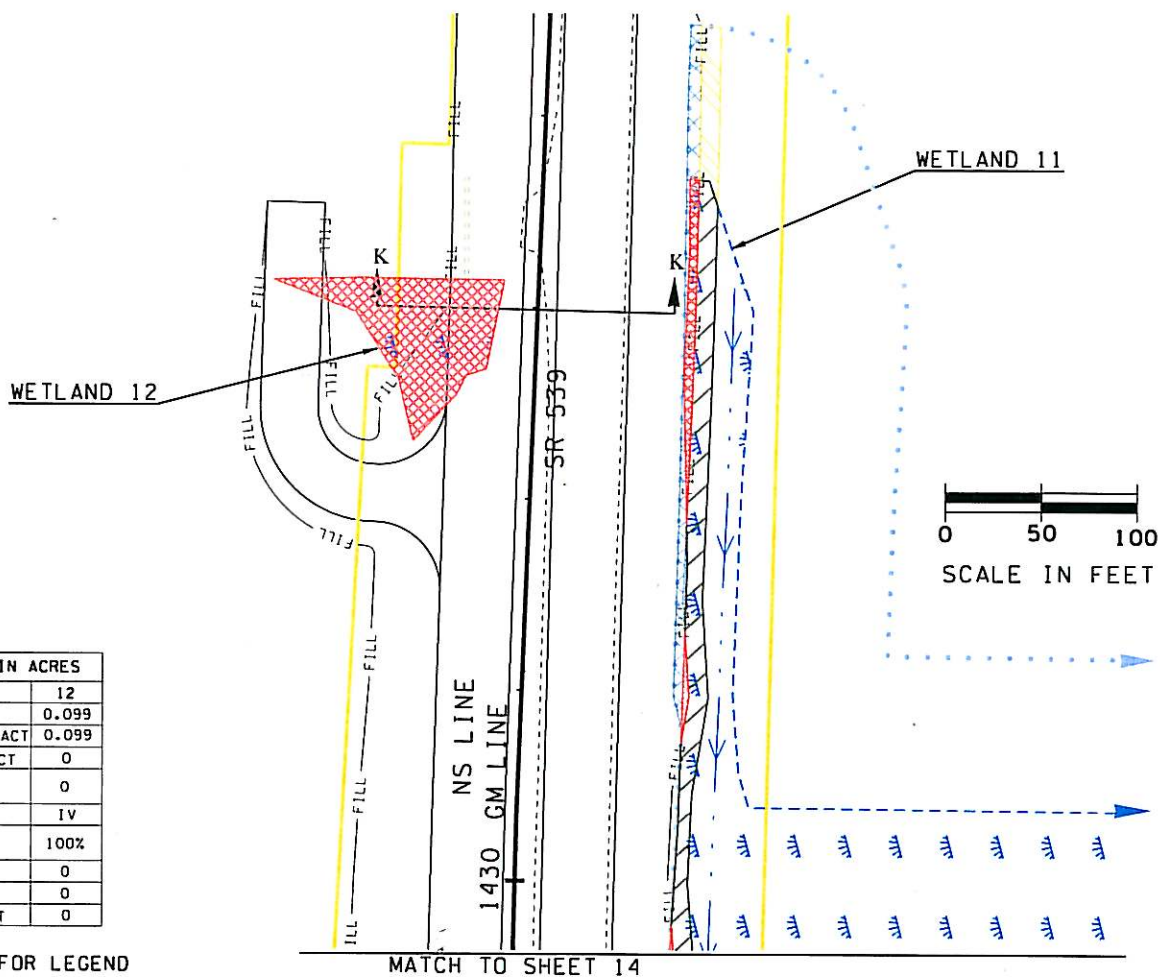
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007

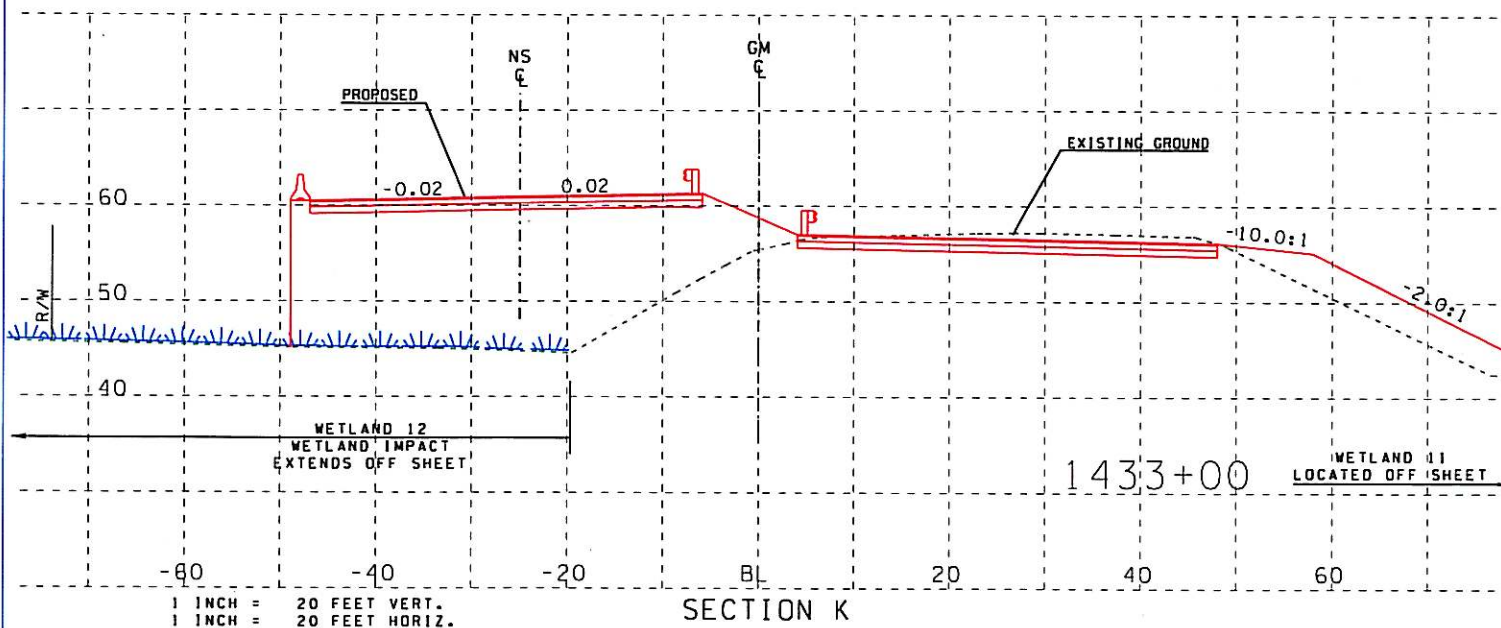


Washington State  
Department of Transportation

SHEET: 16 OF: 42



QUANTITIES ARE IN ACRES	
WETLAND NO.	12
WETLAND AREA	0.099
DIRECT WETLAND IMPACT	0.099
TEMP. WETLAND IMPACT	0
INDIRECT WETLAND IMPACT	0
DDE CATEGORY	IV
% DIRECT WETLAND IMPACT	100%
BUFFER AREA	0
BUFFER IMPACT	0
TEMP. BUFFER IMPACT	0



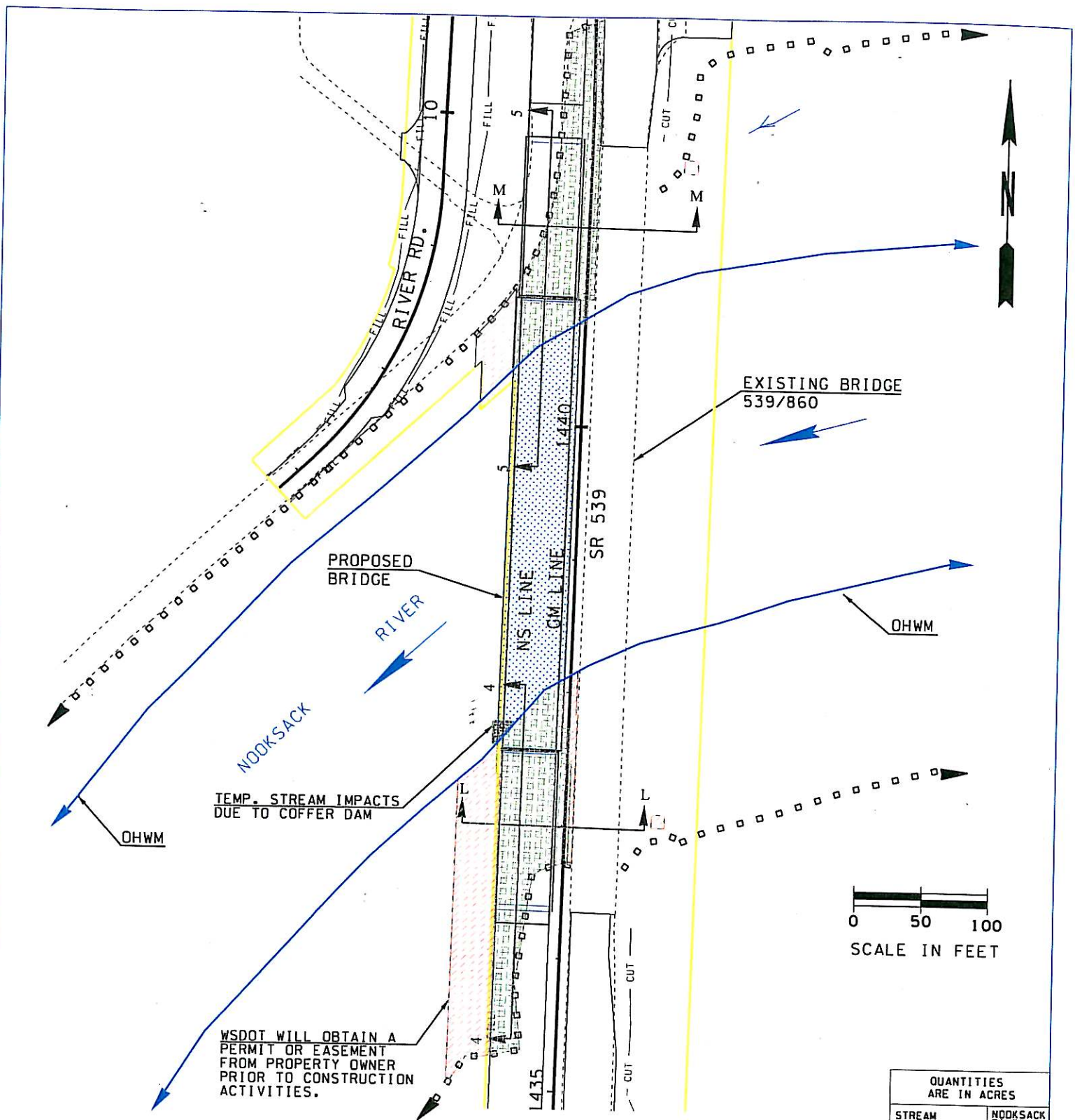
UNLESS OTHERWISE NOTED EXISTING CULVERTS WILL BE ABANDONED IN PLACE.

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007

  
**Washington State**  
**Department of Transportation**  
 SHEET: 17 OF: 42





SEE SHEET 19 FOR SECTION L & PROFILE 4  
 SEE SHEET 20 FOR SECTION M & PROFILE 5  
 SEE SHEET 14 FOR LEGEND

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

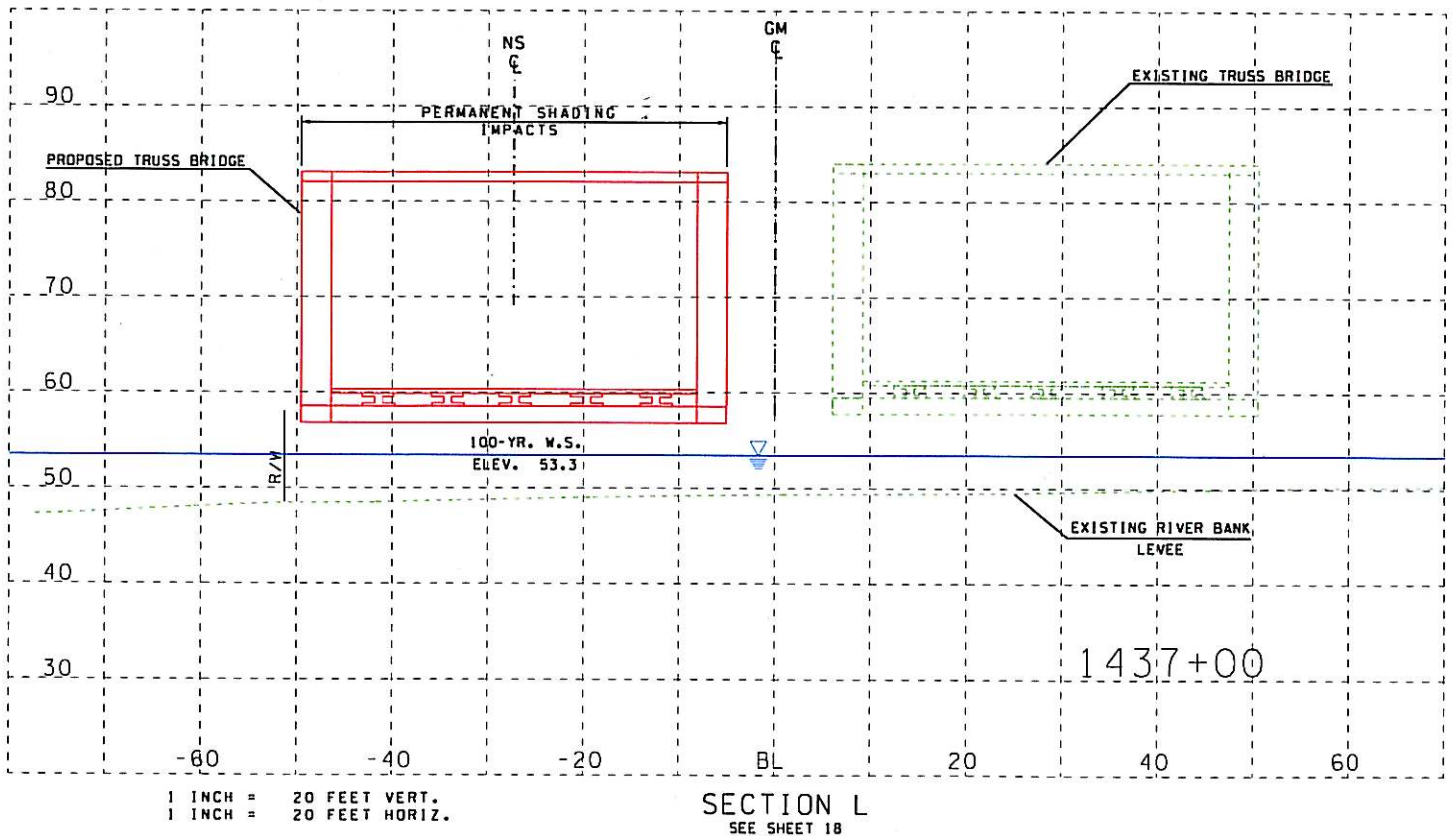
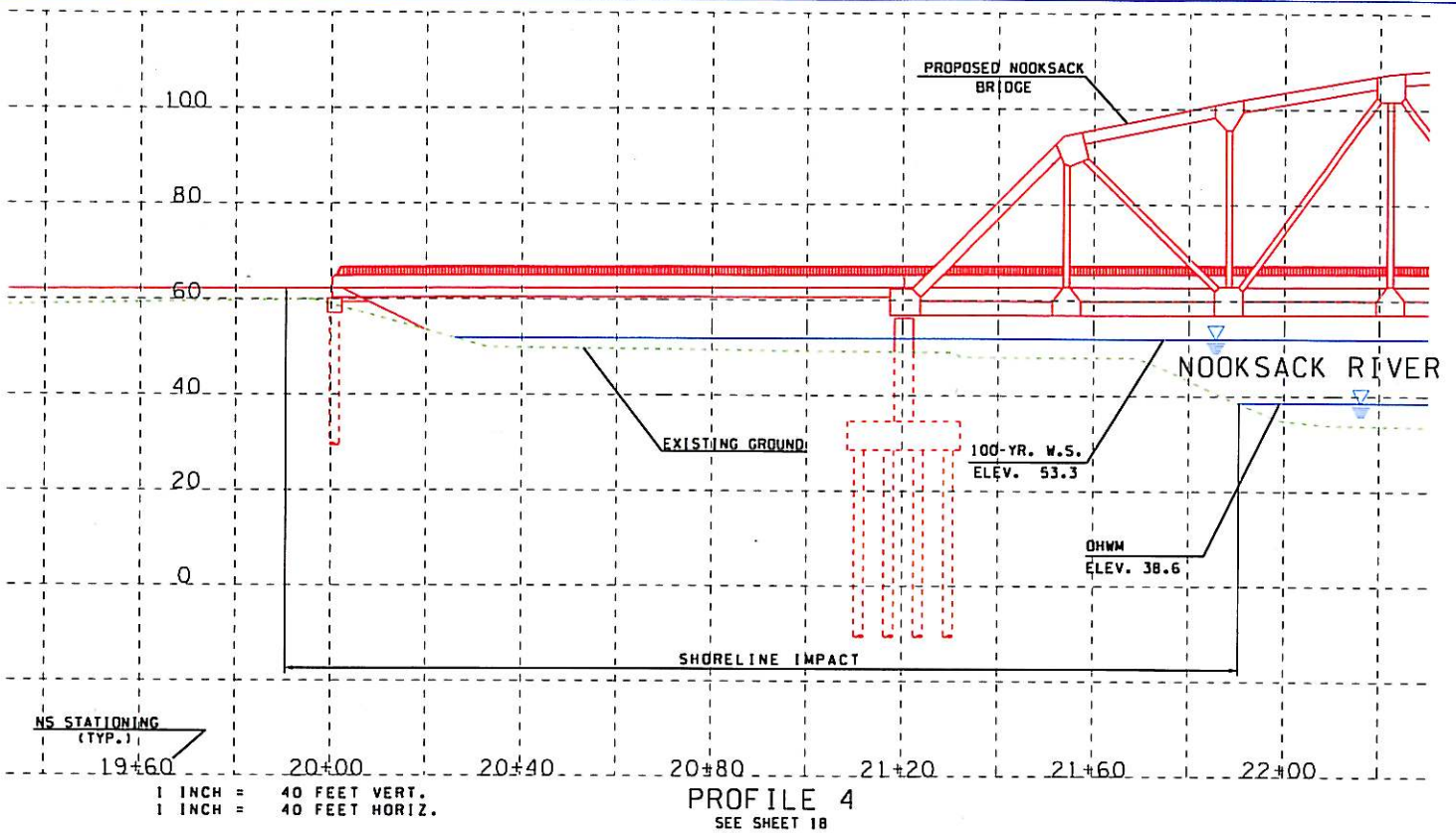
REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE,  
 NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007

QUANTITIES ARE IN ACRES	
STREAM	NOOKSACK RIVER
PERM. STREAM BUFFER IMPACT	0.417
TEMP. STREAM BUFFER IMPACT	0.205
TEMP. IN-STREAM WORK	0.002



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SHEET: 18 OF: 42

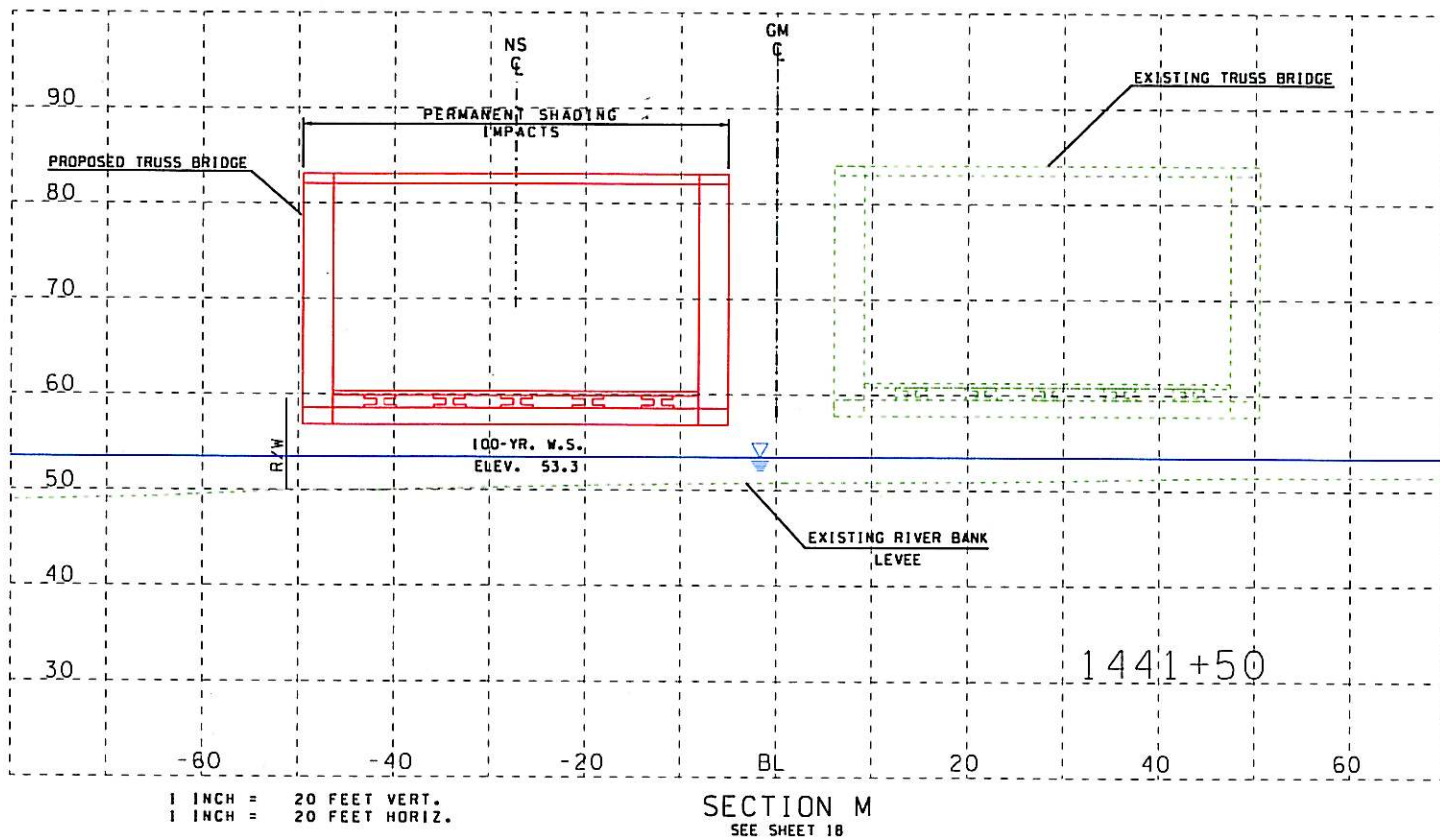
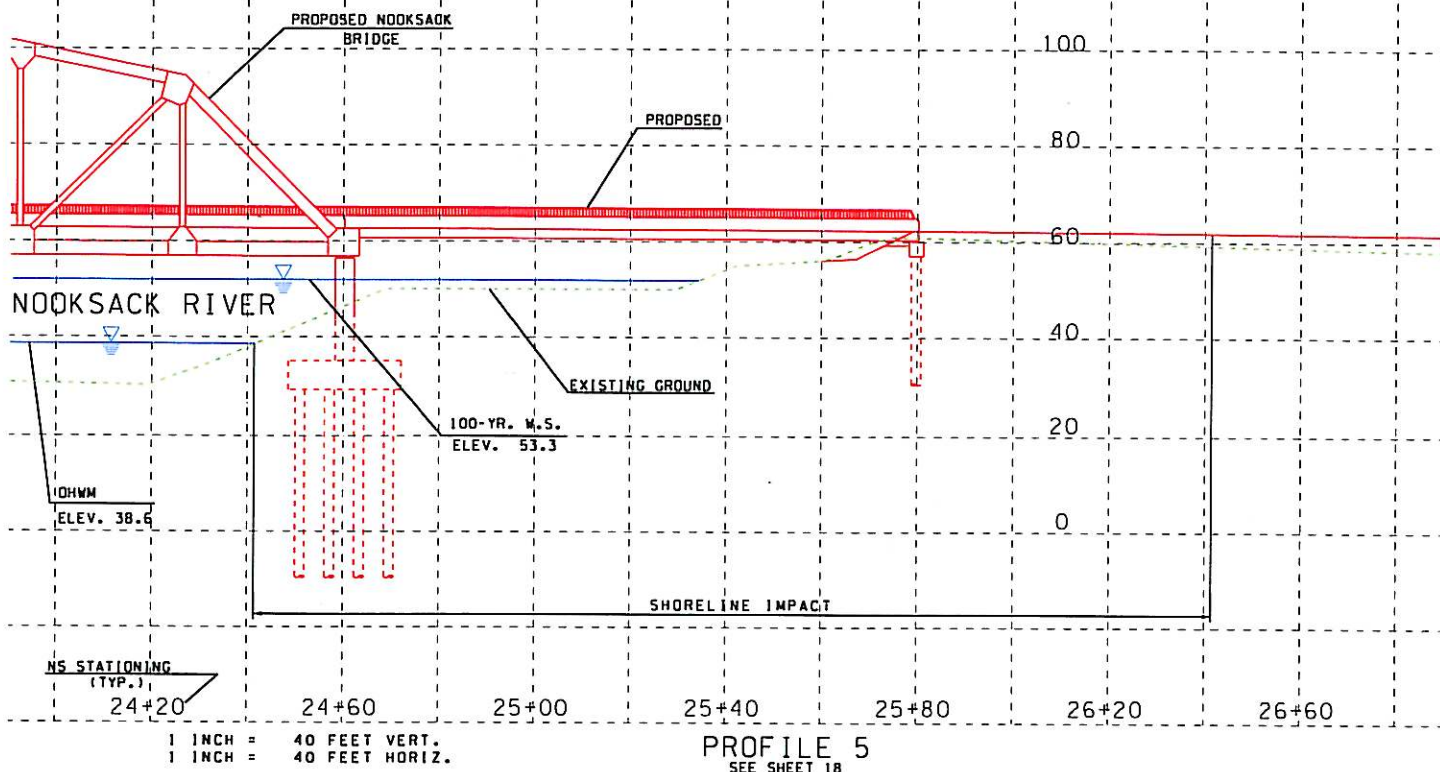


PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE,  
 NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007

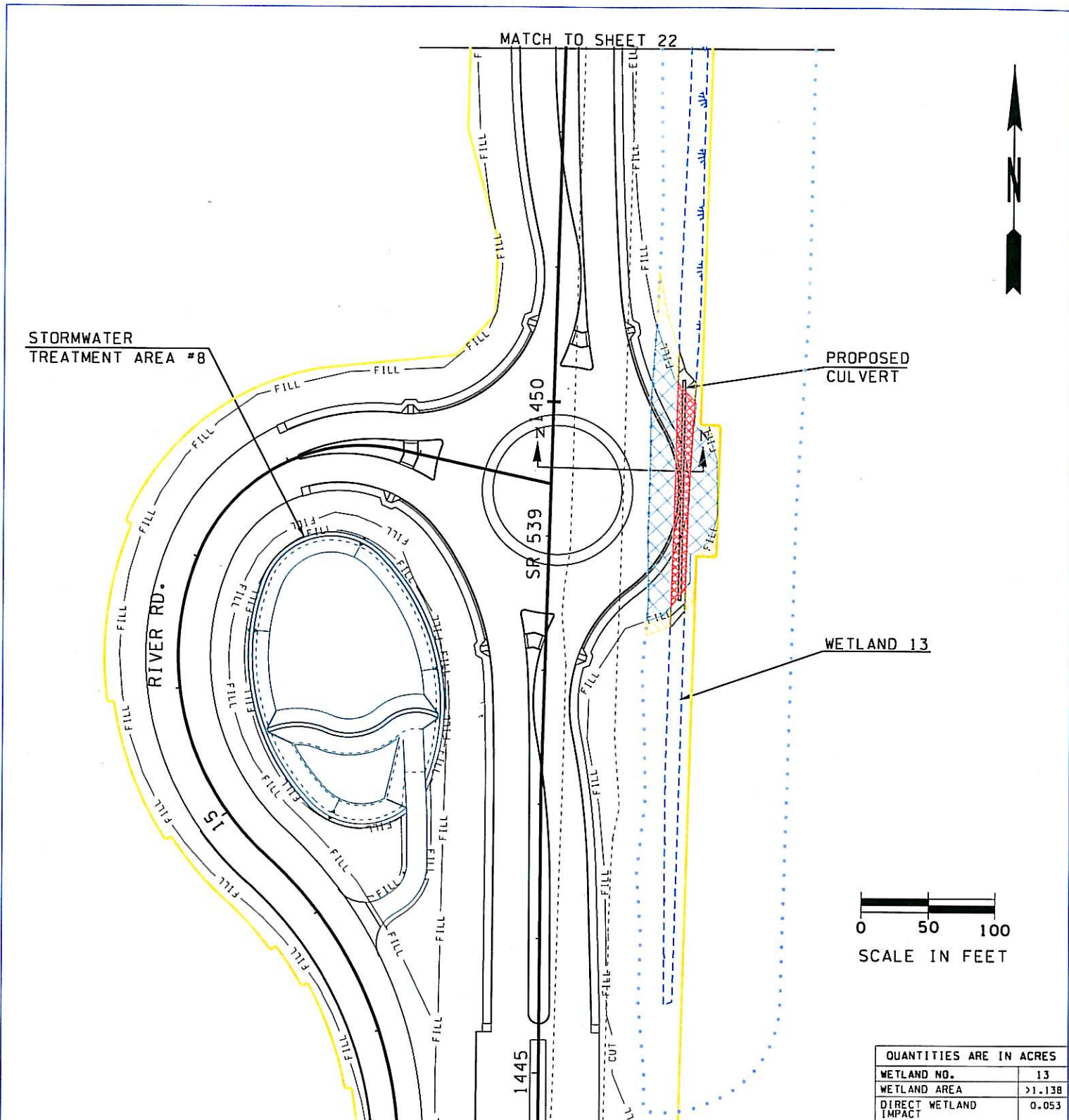
  
 Washington State  
 Department of Transportation  
 SHEET: 19 OF: 42





PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE,  
 NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007



SEE SHEET 23 FOR SECTION N  
SEE SHEET 22 FOR LEGEND

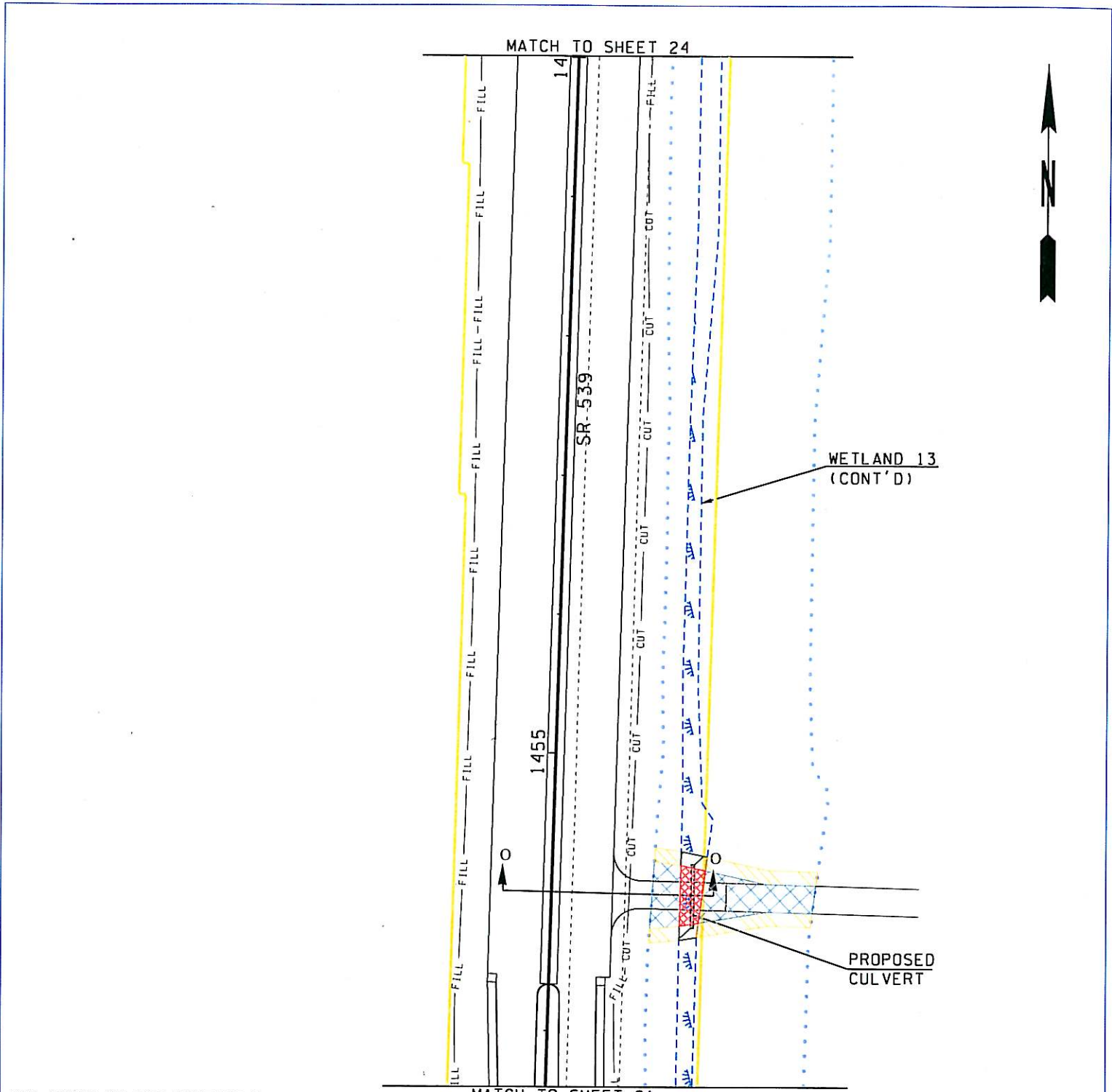
- WETLAND EXTENDS BEYOND DELINEATION. SO PERCENTS ARE APPROXIMATE.
- WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE.

QUANTITIES ARE IN ACRES	
WETLAND NO.	13
WETLAND AREA	>1.138
DIRECT WETLAND IMPACT	0.053
TEMP. WETLAND IMPACT	0.019
INDIRECT WETLAND IMPACT	0
DDE CATEGORY	III
% DIRECT WETLAND IMPACT	• 4%
BUFFER AREA	>7.068
BUFFER IMPACT	0.251
TEMP. BUFFER IMPACT	0.254

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

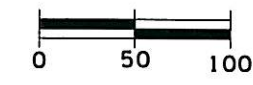
REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007





SEE SHEET 23 FOR SECTION 0

LEGEND			
	DIRECT WETLAND IMPACT		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT
	OPEN WATER IMPACT		IMPACTED STREAM
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM
			WETLAND BUFFER
			EXISTING DITCH
			STREAM BUFFER
			PROPOSED EDGE OF PAVEMENT
			EXISTING EDGE OF PAVEMENT
			RIGHT OF WAY
			STORM SEWER LINE
			CUT/FILL LINE
			EXISTING CULVERT



SCALE IN FEET  
SEE SHEET 21 FOR WETLAND 13 IMPACTS

**PURPOSE:** INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
**PROPOSED:** WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
**LOCATION:** GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
**DATUM:** N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
**ADJACENT PROPERTY OWNERS:** SEE LIST PROVIDED IN JARPA ATTACHMENT B

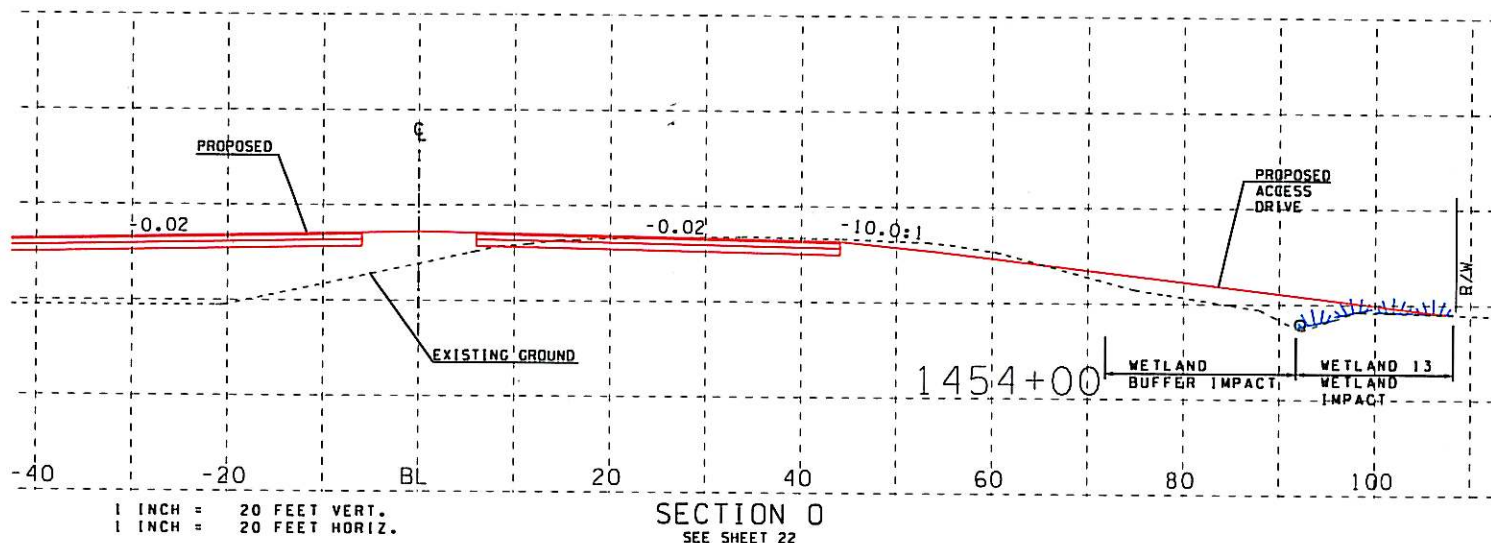
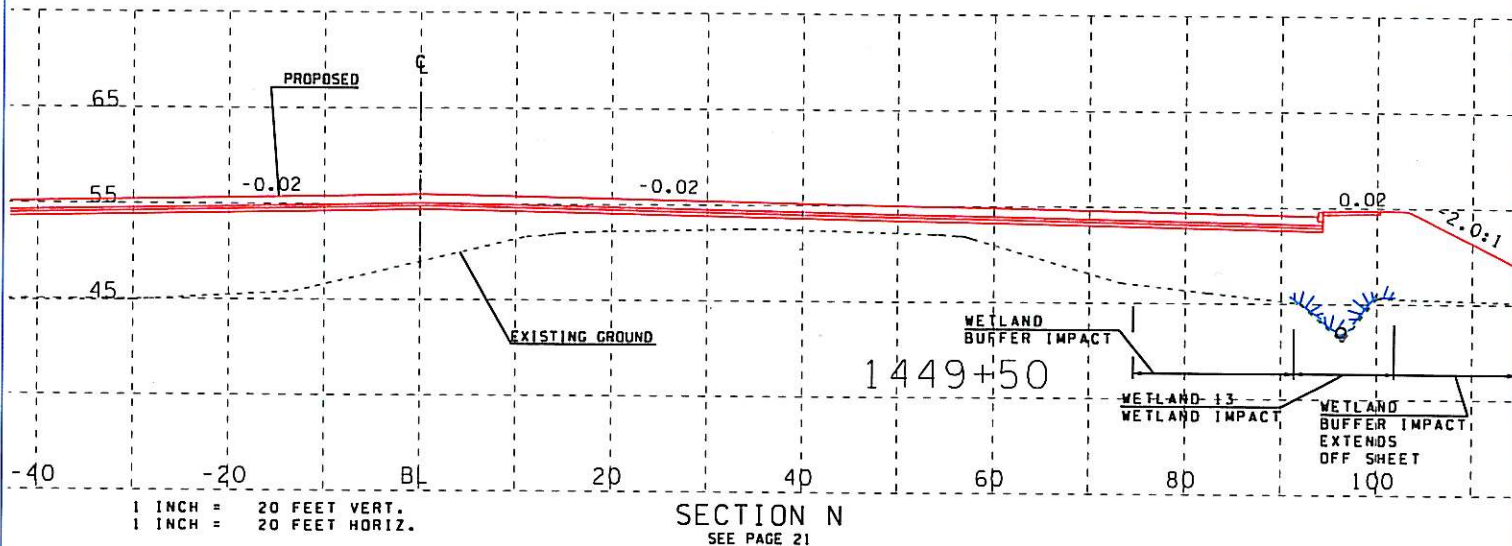
**REFERENCE:** NWS-2007-470-SOD  
**APPLICANT:** WSDOT  
**COUNTY:** WHATCOM  
**NEAR:** LYNDEN  
**WATER BODY:** FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
**DATE:** MAY 22, 2007



**Washington State  
Department of Transportation**

SHEET: 22

OF: 42



PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

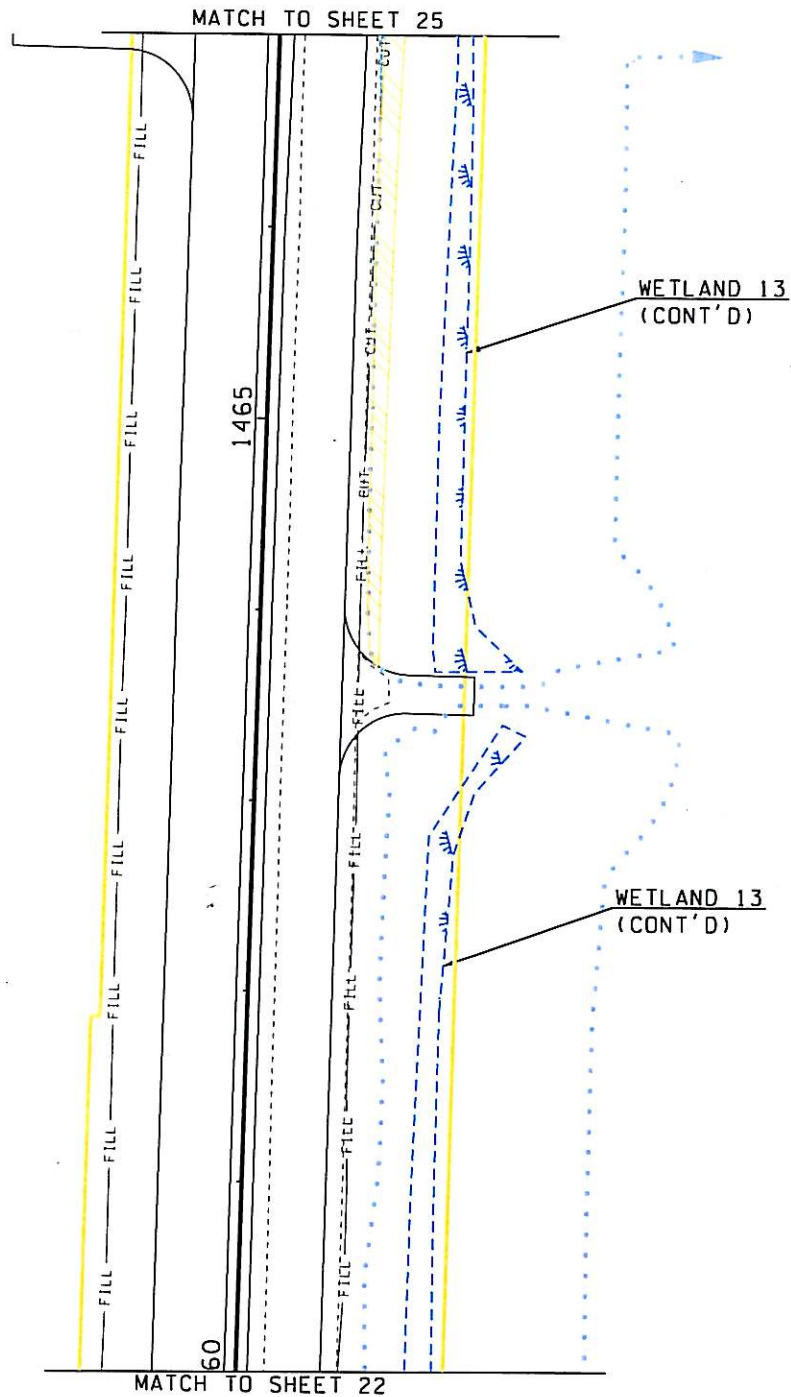
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 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE,  
 NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007



Washington State  
Department of Transportation

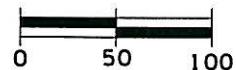
SHEET: 23 OF: 42





# LEGEND

	DIRECT WETLAND IMPACT		WETLAND BOUNDARY		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		EXISTING DITCH
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		STREAM BUFFER
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		PROPOSED EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	OPEN WATER IMPACT		IMPACTED STREAM		RIGHT OF WAY
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		STORM SEWER LINE
					CUT/FILL LINE
					EXISTING CULVERT



SCALE IN FEET

SEE SHEET 21 FOR WETLAND 13 IMPACTS

**PURPOSE:** INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
**PROPOSED:** WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
**LOCATION:** GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
**DATUM:** N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
**ADJACENT PROPERTY OWNERS:** SEE LIST PROVIDED IN JARPA ATTACHMENT B

**REFERENCE:** NWS-2007-470-SOD  
**APPLICANT:** WSDOT  
**COUNTY:** WHATCOM  
**NEAR:** LYNDEN  
**WATER BODY:** FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
**DATE:** MAY 22, 2007



**Washington State**  
**Department of Transportation**

SHEET: 24 OF: 42

REFER TO SHEET 27 FOR  
WETLAND 15 IMPACTS

EXISTING BRIDGE  
539/861

WETLAND 14

OPEN  
WATER

PROPOSED  
BRIDGE

BRIDGE PILES  
(TYP.)

OPEN  
WATER

WETLAND 13  
(CONT'D)

0 50 100

PROPOSED CULVERT  
FOR CONVEYANCE

• WETLAND EXTENDS  
BEYOND DELINEATION  
SO PERCENTS ARE  
APPROXIMATE.

•• WETLAND AREA  
CALCULATED FROM  
AERIAL MAPS AND  
GIS INFORMATION

> WETLAND AREAS EXTEND  
BEYOND DELINEATION.  
AREAS ARE APPROXIMATE

UNLESS OTHERWISE NOTED EXISTING  
CULVERTS WILL BE ABANDONED IN PLACE.

SEE SHEETS 21 & 22 FOR WETLAND 13 IMPACTS

SEE SHEET 26 FOR SECTIONS P & Q

SEE SHEET 28 FOR PROFILE 6

MATCH TO SHEET 24

# LEGEND

	DIRECT WETLAND IMPACT		WETLAND BUFFER		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY		EXISTING DITCH
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT		STREAM BUFFER
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT		PROPOSED EDGE OF PAVEMENT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT		EXISTING EDGE OF PAVEMENT
	OPEN WATER IMPACT		IMPACTED STREAM		RIGHT OF WAY
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM		STORM SEWER LINE
					CUT/FILL LINE
					EXISTING CULVERT

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND  
IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE  
BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA  
ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007

QUANTITIES ARE IN ACRES

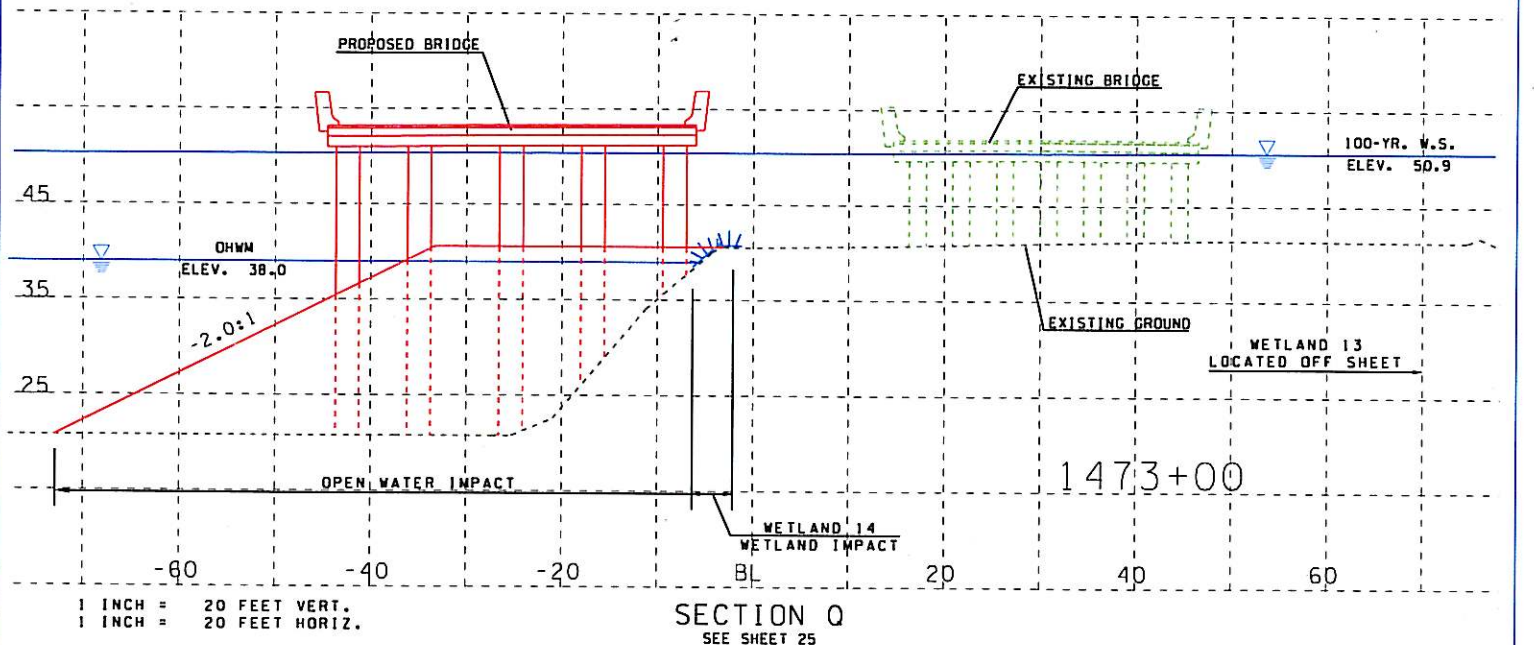
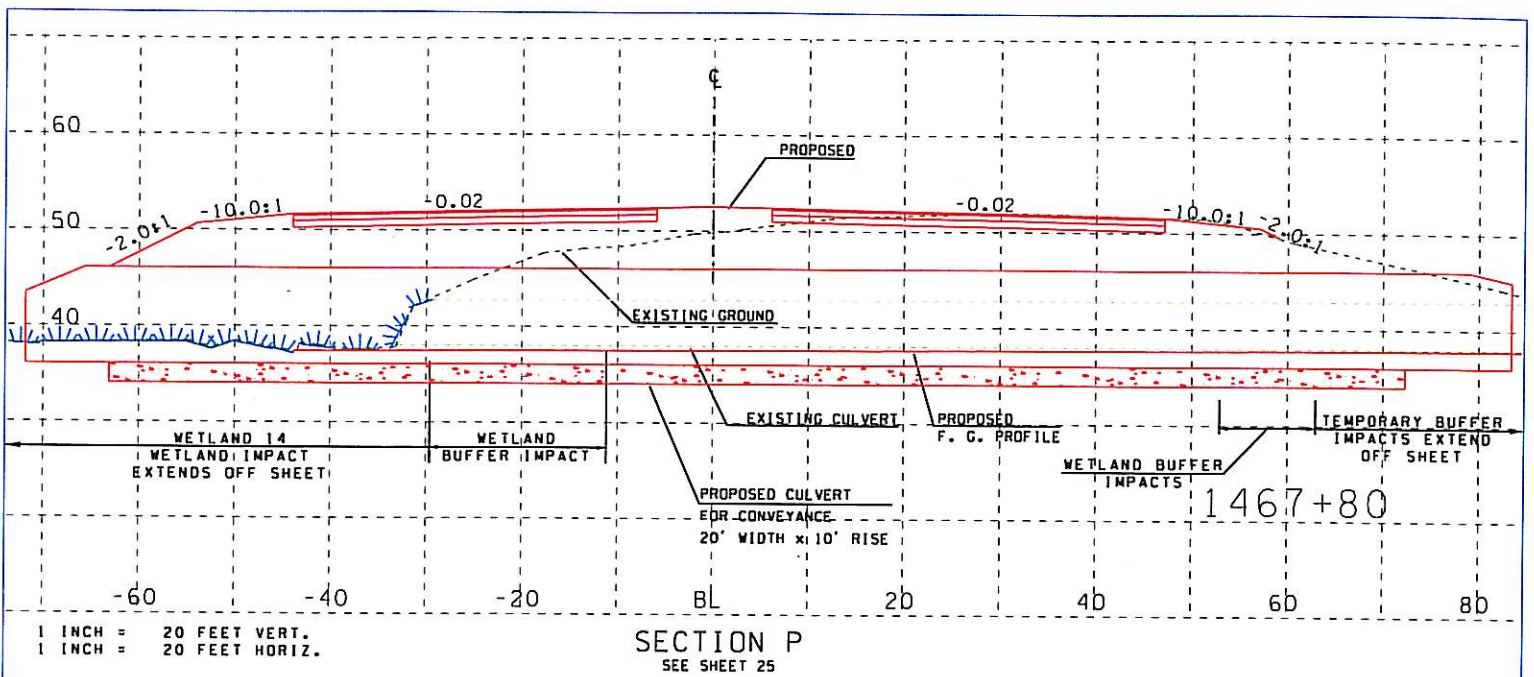
WETLAND NO.	14	WETLAND NO. 14
WETLAND AREA	2.700	OPEN WATER IMPACTS
DIRECT WETLAND IMPACT	0.157	0.210
TEMP. WETLAND IMPACT	0.006	SHADING IMPACT
INDIRECT WETLAND IMPACT	0	0
DDE CATEGORY	III	IN-WATER FILL
% DIRECT WETLAND IMPACT	6%	2,900 CY
BUFFER AREA	>2.039	
BUFFER IMPACT	0.674	
TEMP. BUFFER IMPACT	0.474	



Washington State  
Department of Transportation

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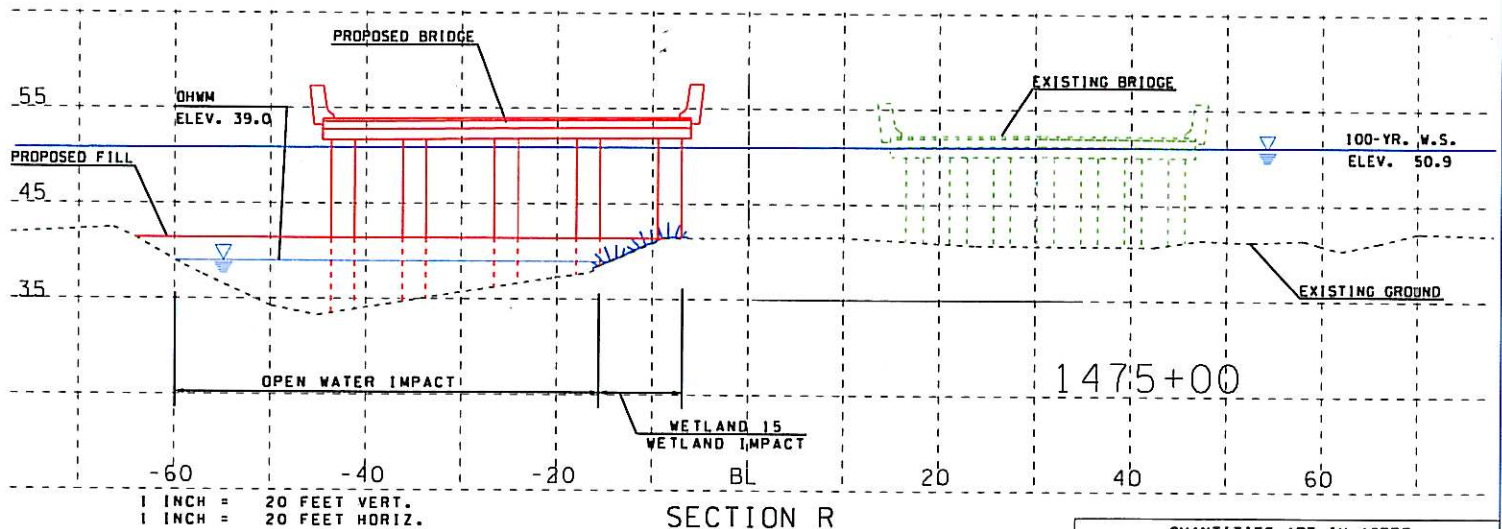
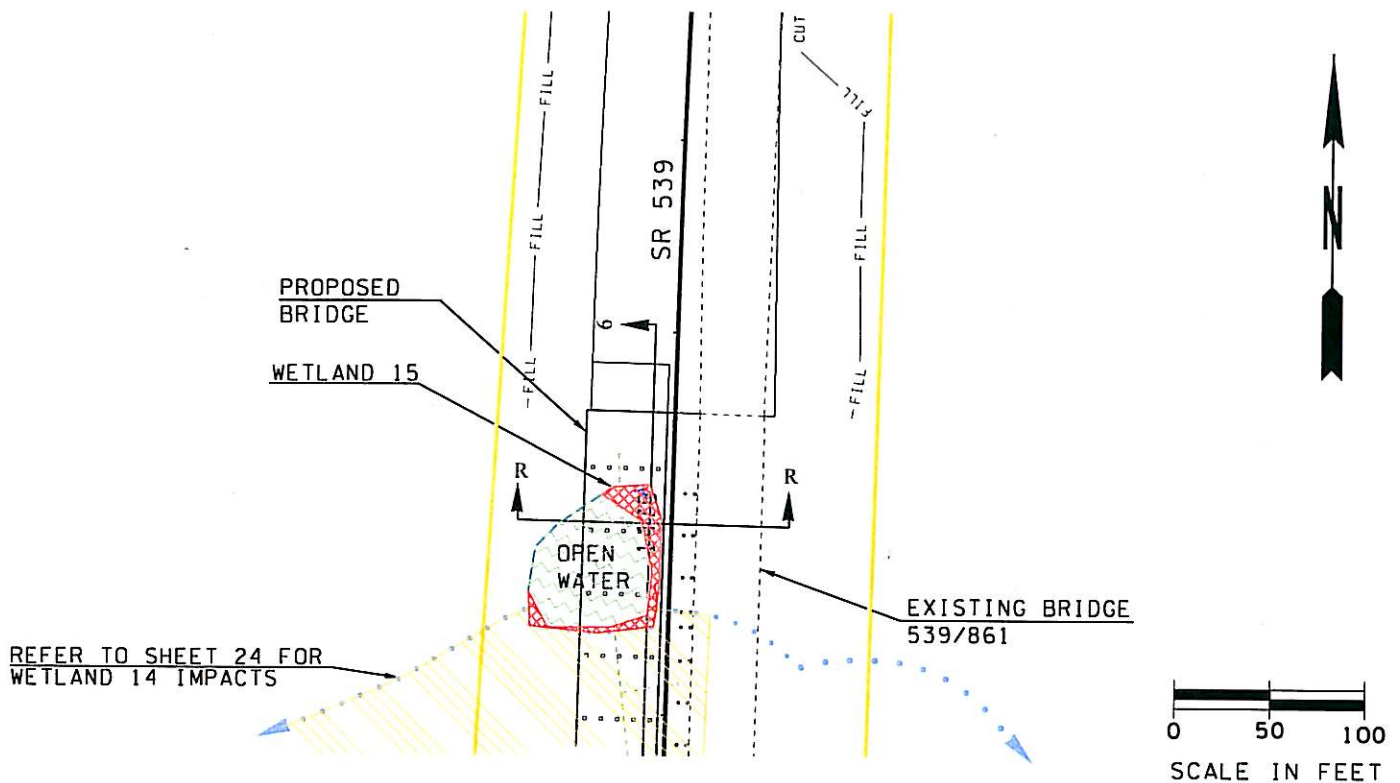




PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007

  
**Washington State  
Department of Transportation**  
SHEET: 26 OF: 42



SEE SHEET 28 FOR PROFILE 6

LEGEND			
	DIRECT WETLAND IMPACT		WETLAND BUFFER
	INDIRECT WETLAND IMPACT		WETLAND BOUNDARY
	TEMP. IMPACTED WETLAND		PERMANENT SHADING IMPACT
	WETLAND BUFFER IMPACTS		PERMANENT STREAM BUFFER IMPACT
	TEMP. BUFFER IMPACTS		TEMP. STREAM BUFFER IMPACT
	OPEN WATER IMPACT		IMPACTED STREAM
	TEMP. DISTURBANCE		TEMP. IMPACTED STREAM
			WETLAND BUFFER
			EXISTING DITCH
			STREAM BUFFER
			PROPOSED EDGE OF PAVEMENT
			EXISTING EDGE OF PAVEMENT
			RIGHT OF WAY
			STORM SEWER LINE
			CUT/FILL LINE
			EXISTING CULVERT

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007

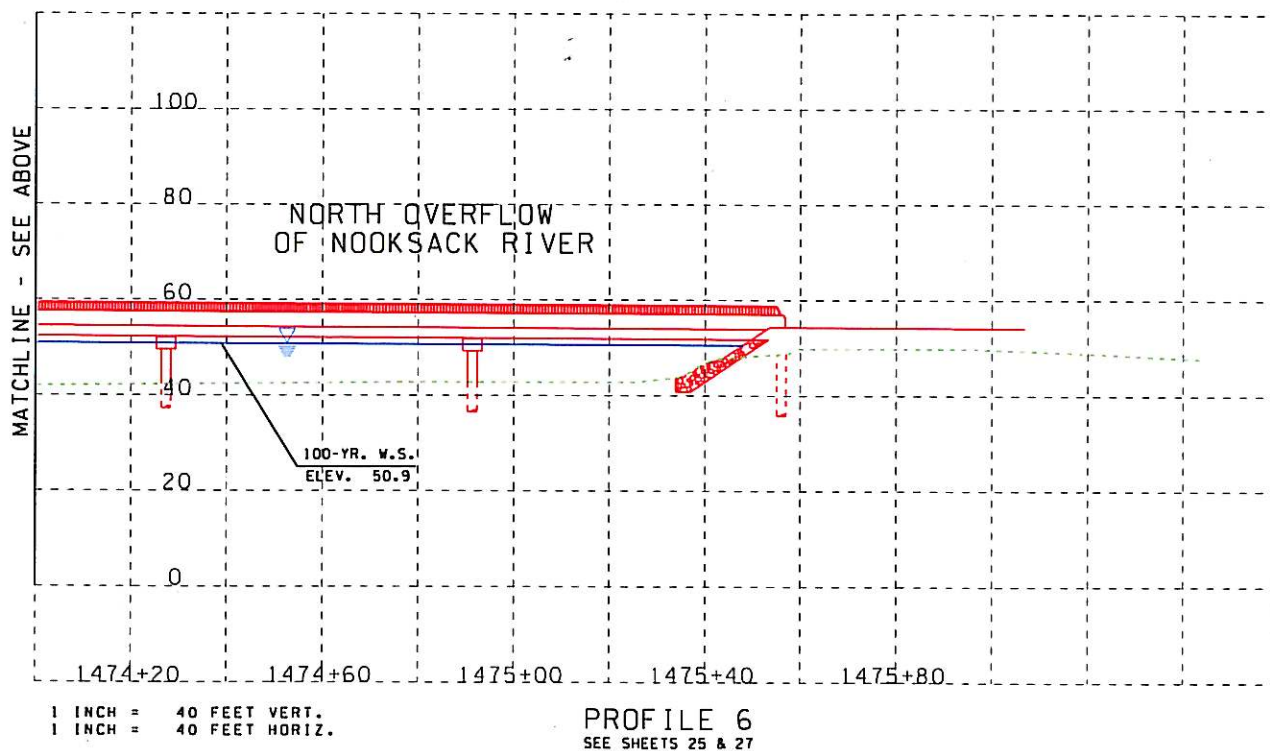
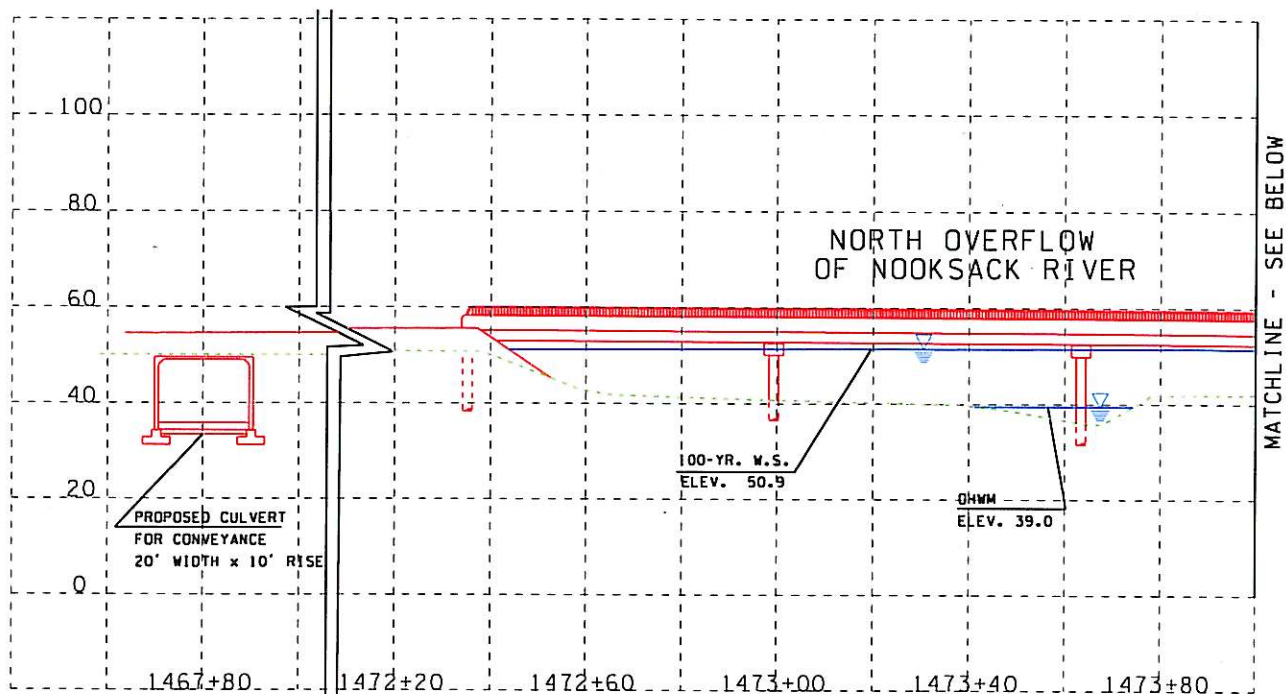
QUANTITIES ARE IN ACRES			
WETLAND NO.	15	WETLAND NO. 15	
WETLAND AREA	0.021	OPEN WATER IMPACTS	0.079
DIRECT WETLAND IMPACT	0.021	SHADING IMPACT	0
TEMP. WETLAND IMPACT	0	IN-WATER FILL	720 CY
INDIRECT WETLAND IMPACT	0		
DOE CATEGORY	III		
% DIRECT WETLAND IMPACT	100%		
BUFFER AREA	0		
BUFFER IMPACT	0		
TEMP. BUFFER IMPACT	0		



Washington State  
 Department of Transportation

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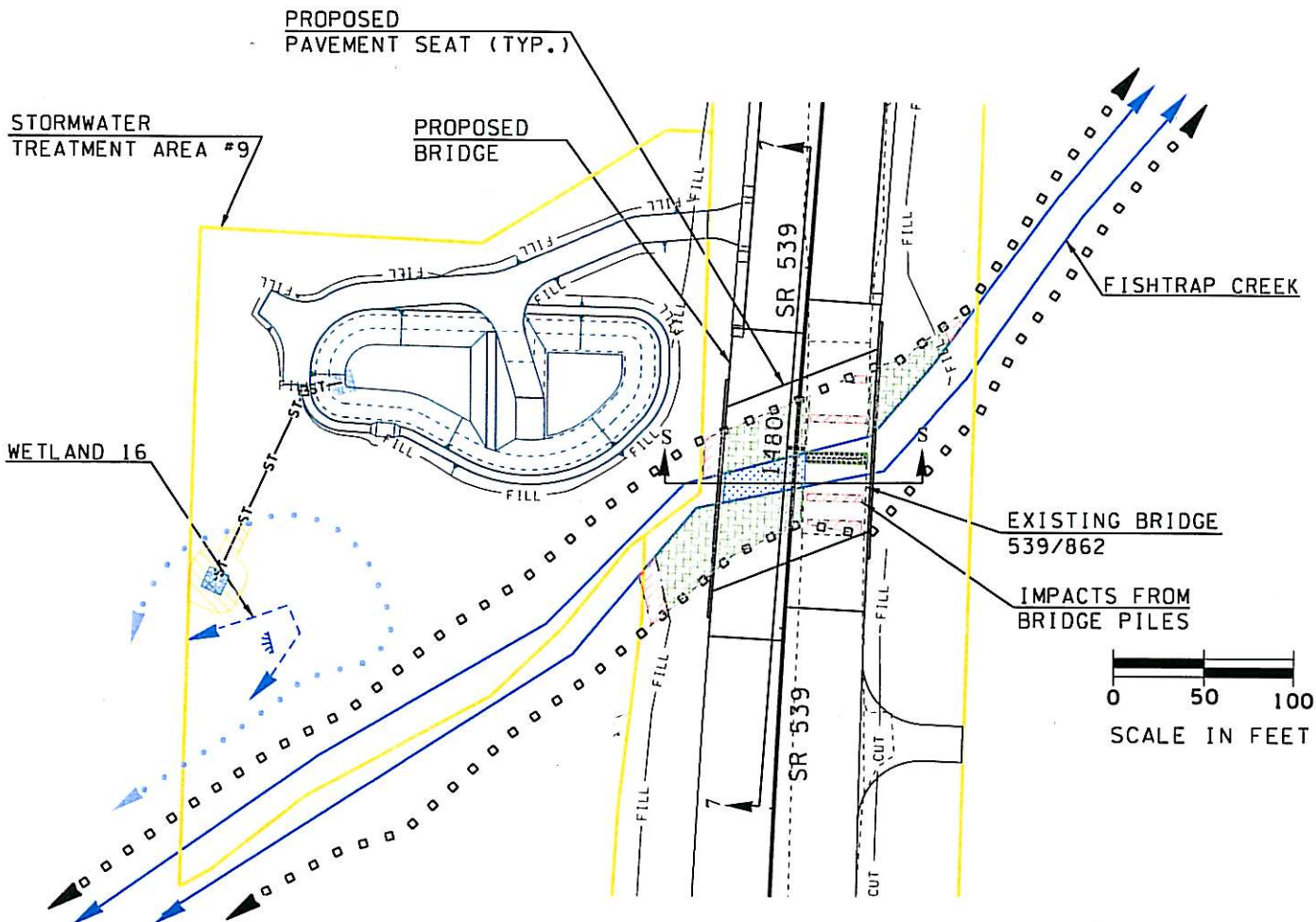
PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007



Washington State  
Department of Transportation

SHEET: 28 OF: 42



SEE SHEET 30 FOR SECTION 5

SEE SHEET 31 FOR PROFILE 7

> WETLAND AREAS EXTEND BEYOND DELINEATION. AREAS ARE APPROXIMATE.

LEGEND	
	DIRECT WETLAND IMPACT
	INDIRECT WETLAND IMPACT
	TEMP. IMPACTED WETLAND
	WETLAND BUFFER IMPACTS
	TEMP. BUFFER IMPACTS
	OPEN WATER IMPACT
	TEMP. DISTURBANCE
	WETLAND BOUNDARY
	PERMANENT SHADING IMPACT
	PERMANENT STREAM BUFFER IMPACT
	TEMP. STREAM BUFFER IMPACT
	IMPACTED STREAM
	TEMP. IMPACTED STREAM
	WETLAND BUFFER
	EXISTING DITCH
	STREAM BUFFER
	PROPOSED EDGE OF PAVEMENT
	EXISTING EDGE OF PAVEMENT
	RIGHT OF WAY
	STORM SEWER LINE
	- FILL / - CUT
	CUT/FILL LINE
	EXISTING CULVERT

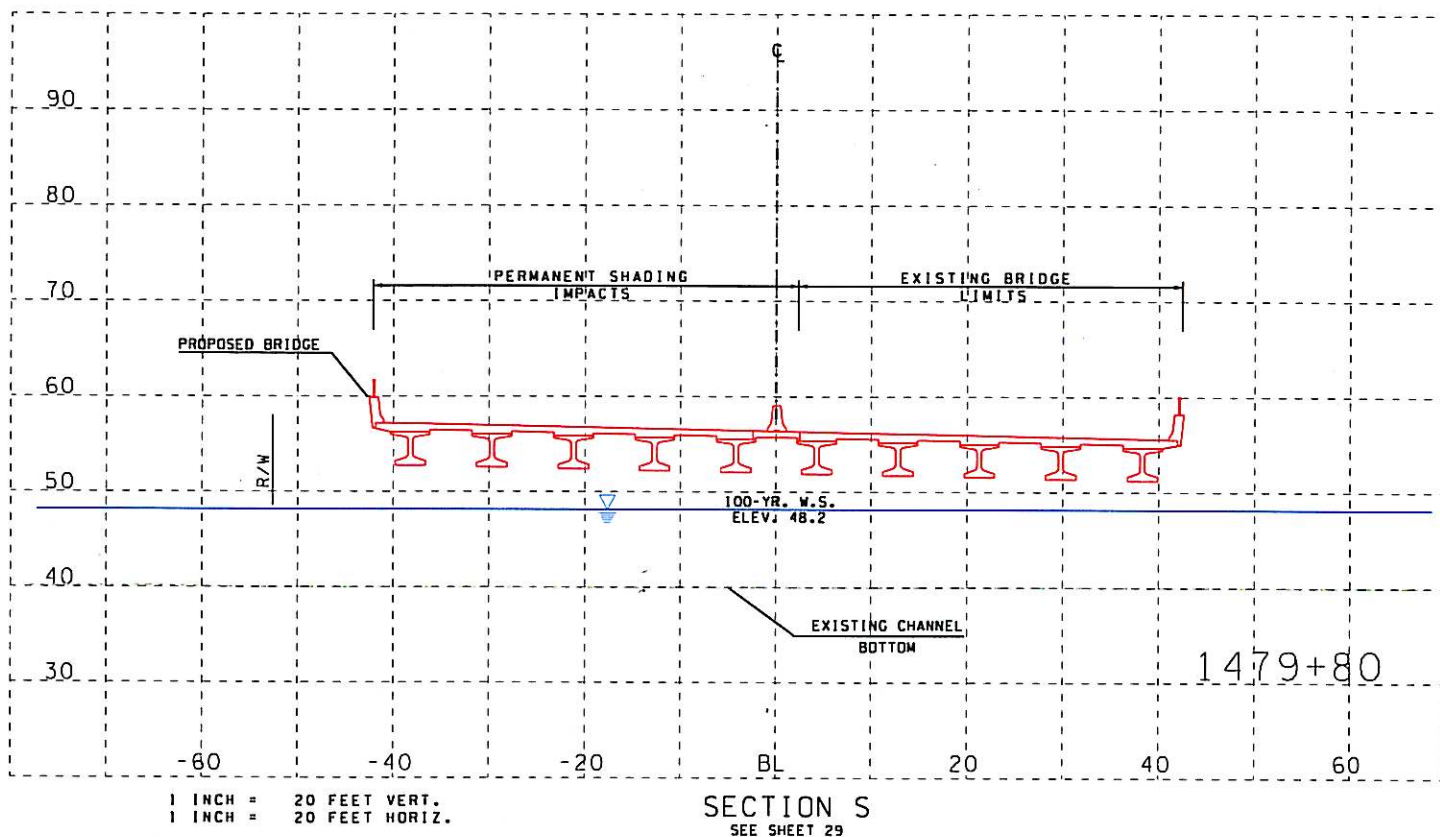
QUANTITIES ARE IN ACRES			
WETLAND NO.	16	STREAM	FISHTRAP CREEK
WETLAND AREA	>0.021		
DIRECT WETLAND IMPACT	0	PERM. STREAM BUFFER IMPACT	0.110
TEMP. WETLAND IMPACT	0	TEMP. STREAM BUFFER IMPACT	0.024
INDIRECT WETLAND IMPACT	0	PERM. SHADING IMPACT	0.018
DOE CATEGORY	1V	TEMP. IN-STREAM WORK	0.004
% DIRECT WETLAND IMPACT	0%		
BUFFER AREA	>0.235		
BUFFER IMPACT	0.003		
TEMP. BUFFER IMPACT	0.021		

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: LYNDEN  
 WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MAY 22, 2007

Washington State  
 Department of Transportation  
 SHEET: 29 OF: 42





PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE,  
 NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007



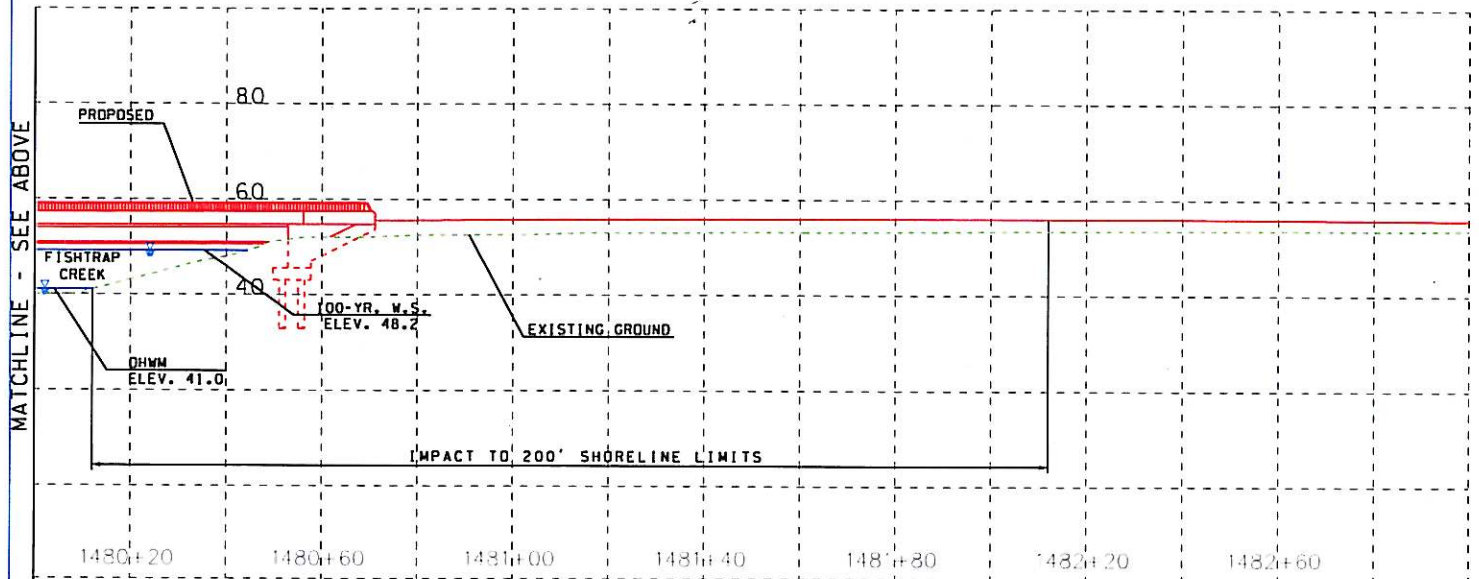
Washington State  
 Department of Transportation

SHEET: 30 OF: 42



1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.

PROFILE 7  
SEE SHEET 29



1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.

PROFILE 7  
SEE SHEET 29

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

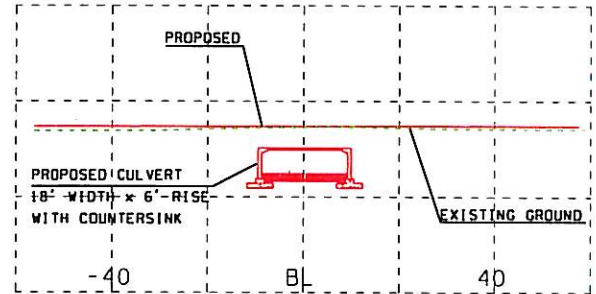
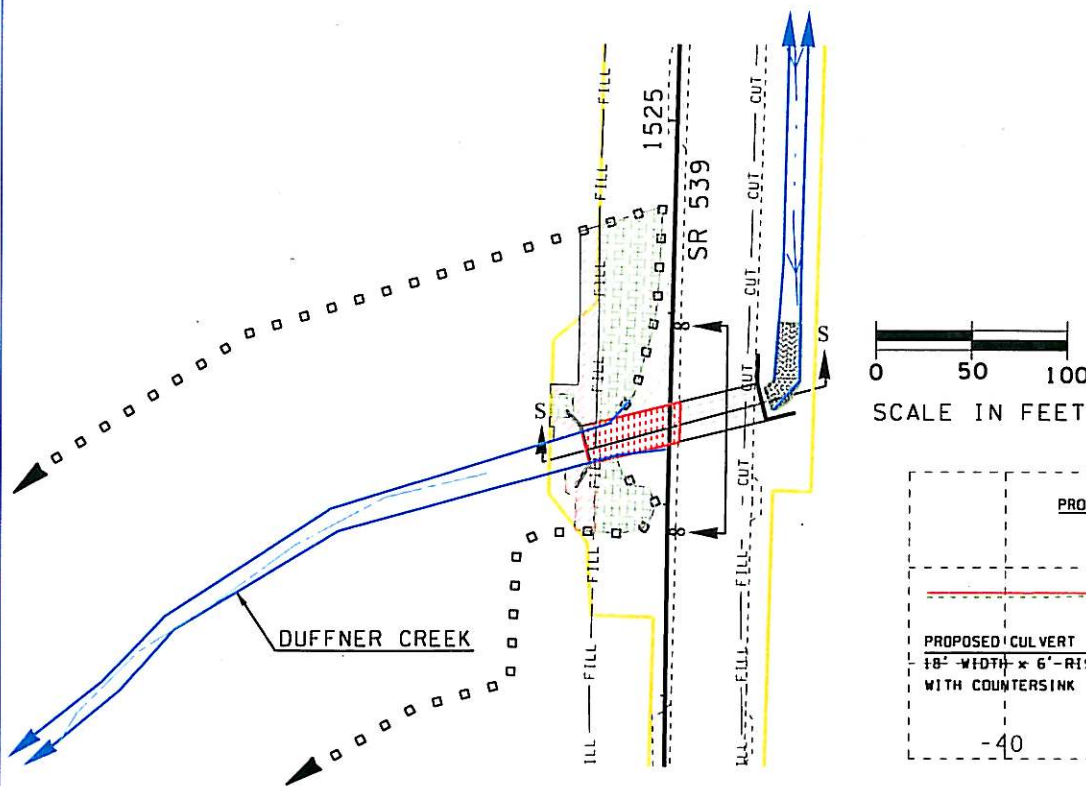
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APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: LYNDEN  
WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MAY 22, 2007



Washington State  
Department of Transportation

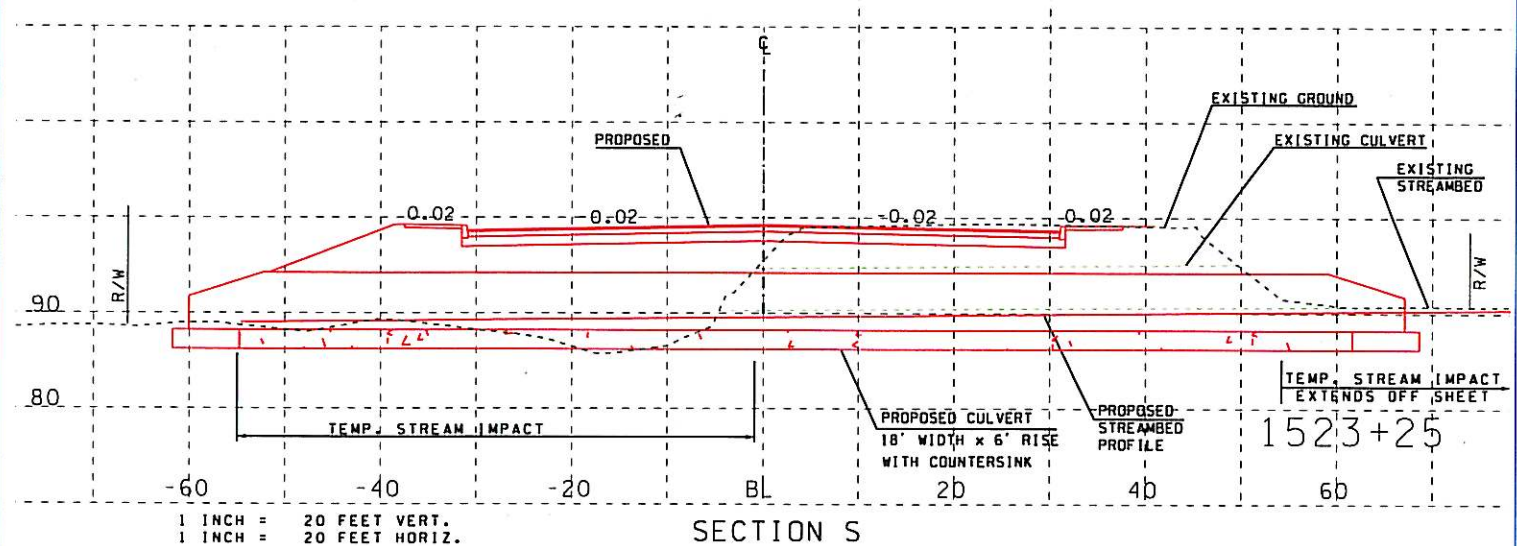
SHEET: 31 OF: 42





PROFILE 8

1 INCH = 40 FEET VERT.  
1 INCH = 40 FEET HORIZ.



EXISTING (2) 48" DIAMETER CULVERTS IN PARALLEL  
TO BE REMOVED AND REPLACED AS SHOWN.

LEGEND	
	DIRECT WETLAND IMPACT
	INDIRECT WETLAND IMPACT
	TEMP. IMPACTED WETLAND
	WETLAND BUFFER IMPACTS
	TEMP. BUFFER IMPACTS
	OPEN WATER IMPACT
	TEMP. DISTURBANCE
	WETLAND BOUNDARY
	PERMANENT SHADING IMPACT
	PERMANENT STREAM BUFFER IMPACT
	TEMP. STREAM BUFFER IMPACT
	IMPACTED STREAM
	TEMP. IMPACTED STREAM
	WETLAND BUFFER
	EXISTING DITCH
	STREAM BUFFER
	PROPOSED EDGE OF PAVEMENT
	EXISTING EDGE OF PAVEMENT
	RIGHT OF WAY
	STORM SEWER LINE
	FILL / CUT
	CUT/FILL LINE
	EXISTING CULVERT

QUANTITIES ARE IN ACRES	
STREAM	DUFFNER CREEK
PERM. STREAM IMPACT	0.023
TEMP. STREAM BUFFER IMPACT	0.038
PERM. STREAM BUFFER IMPACT	0.090
TEMP. IN-STREAM WORK	0.012

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TENMILE RD TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: LYNDEN

WATER BODY: FOURMILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MAY 22, 2007



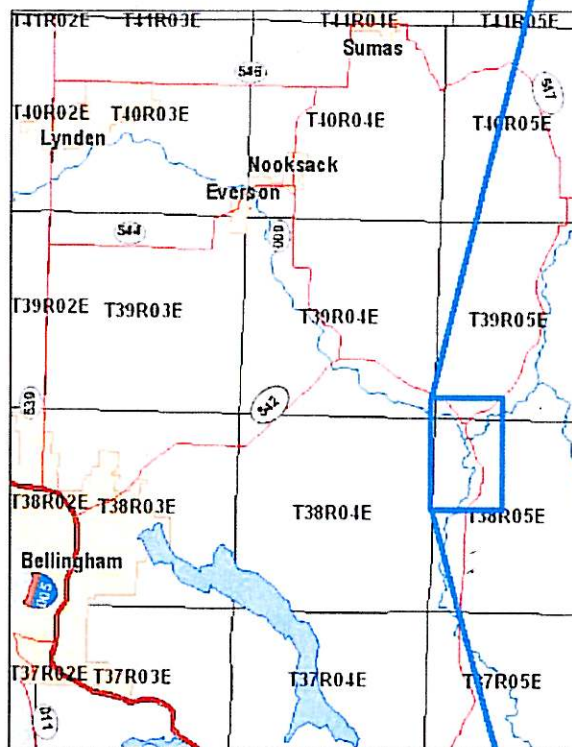
Washington State  
Department of Transportation

SHEET: 32 OF: 42



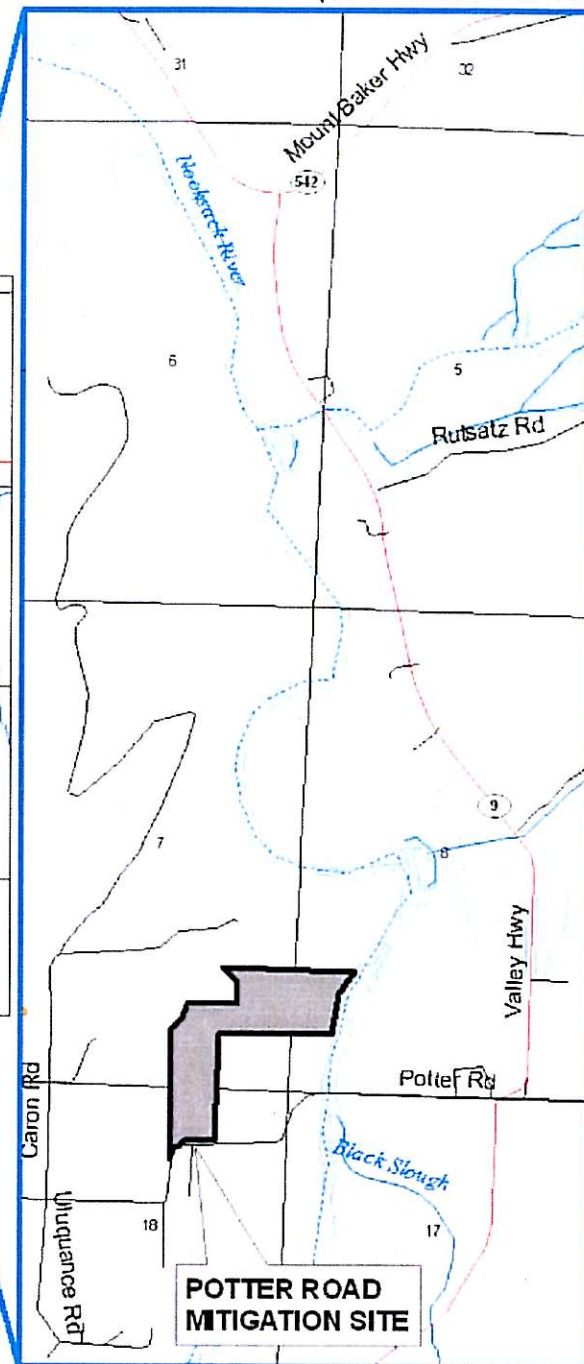
T.38N..R.05E..W.M. (SECTIONS 7 & 18)

NOT TO SCALE:



### Legend

- Local Road
- Other Road
- ..... Private, Service, Non-vehicular
- State Route
- Section
- Potter Rd Mitigation Site



NOT TO SCALE:

VICINITY:  
POTTER ROAD WETLAND MITIGATION

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: BELLINGHAM

WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MARCH 30, 2007

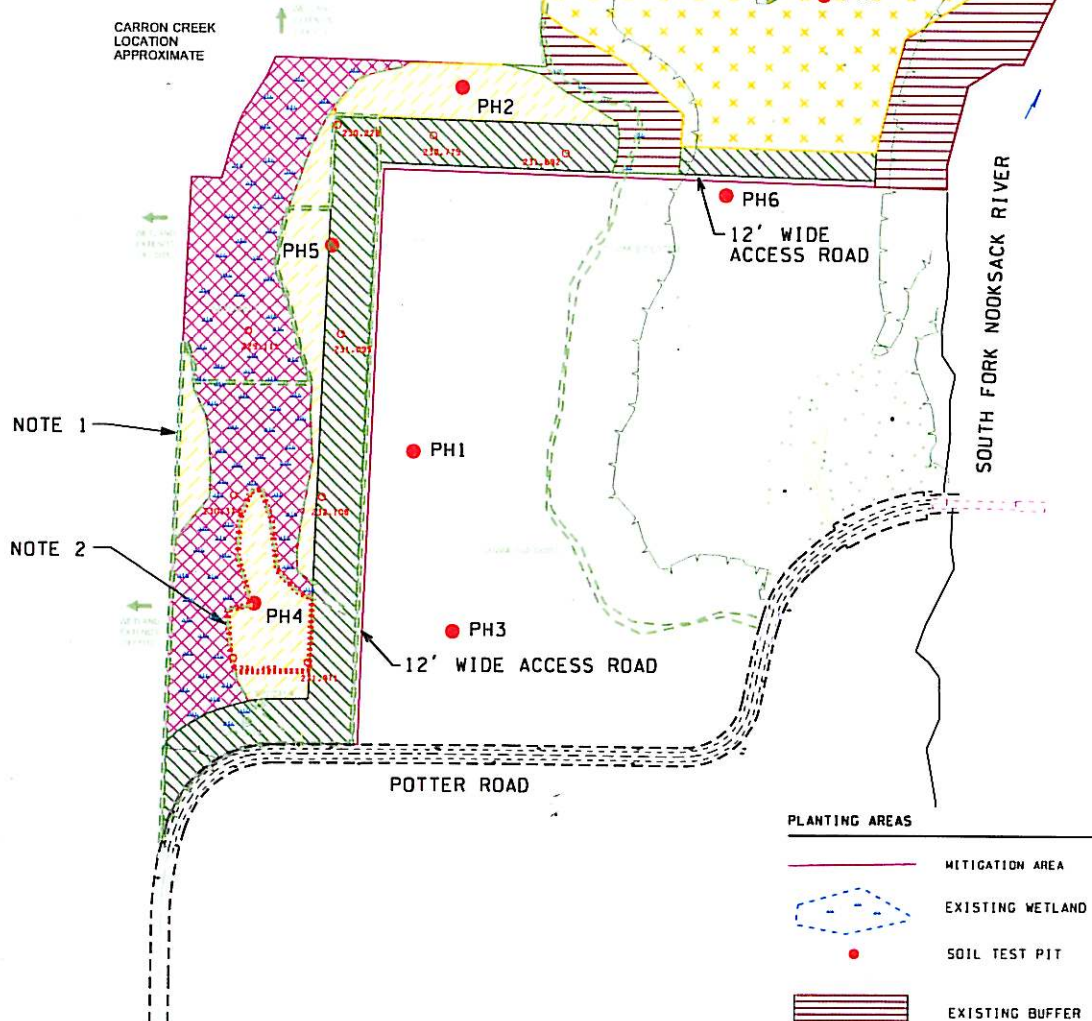


Washington State  
Department of Transportation

SHEET: 33 OF: 42



# POTTER ROAD WETLAND MITIGATION SITE SCHEMATIC:



PLANTING AREAS	TOTALS
MITIGATION AREA	
EXISTING WETLAND	
SOIL TEST PIT	
EXISTING BUFFER	3.7 AC
PSS CREATION	4.1 AC
BUFFER	8.4 AC
PFO WETLAND ENHANCEMENT	0.2 AC
PFO CREATION	6.2 AC
PSS WETLAND ENHANCEMENT	6.5 AC

NOTE 1 TEN MILE ROAD TO SR 546 MITIGATION AREA

NOTE 2 FUTURE MITIGATION

REMAINING WETLAND MITIGATION AREAS WILL BE USED BY THE HORTON TO TEN MILE PROJECT AS SHOWN IN TABLE 1.

TABLE 1				
PROJECT APPLICATION	HORTON ROAD TO TENMILE ROAD	TENMILE ROAD TO SR 546 (NOTE 1)	FUTURE MITIGATION (NOTE 2)	TOTALS
TOTAL CREATION	7.66 AC	1.62 AC	1.02 AC	10.3 AC
TOTAL ENHANCEMENT	3.57 AC	3.13 AC		6.7 AC
TOTAL BUFFER	4.47 AC	3.93 AC		8.4 AC
TOTAL SITE AREA				25.4 AC

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: BELLINGHAM

WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

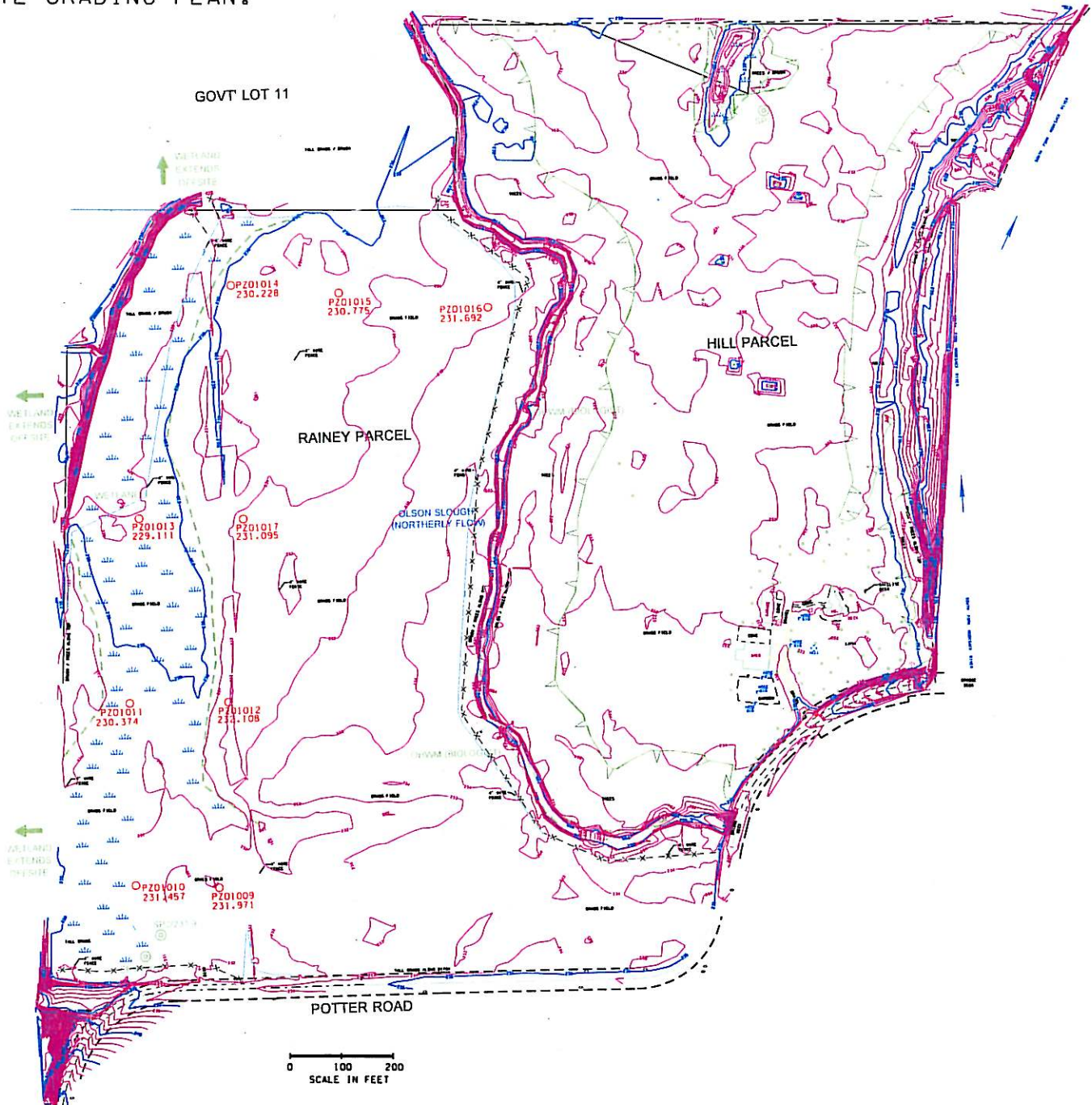
DATE: MARCH 30, 2007



Washington State  
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# POTTER ROAD WETLAND MITIGATION SITE GRADING PLAN:



## NOTES:

1. THIS GRADING PLAN WILL BE DESIGNED AND/OR REVISED BASED ON PIEZOMETER DATA THAT WSDOT IS CURRENTLY COLLECTING.

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA

ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: BELLINGHAM

WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MARCH 1, 2007



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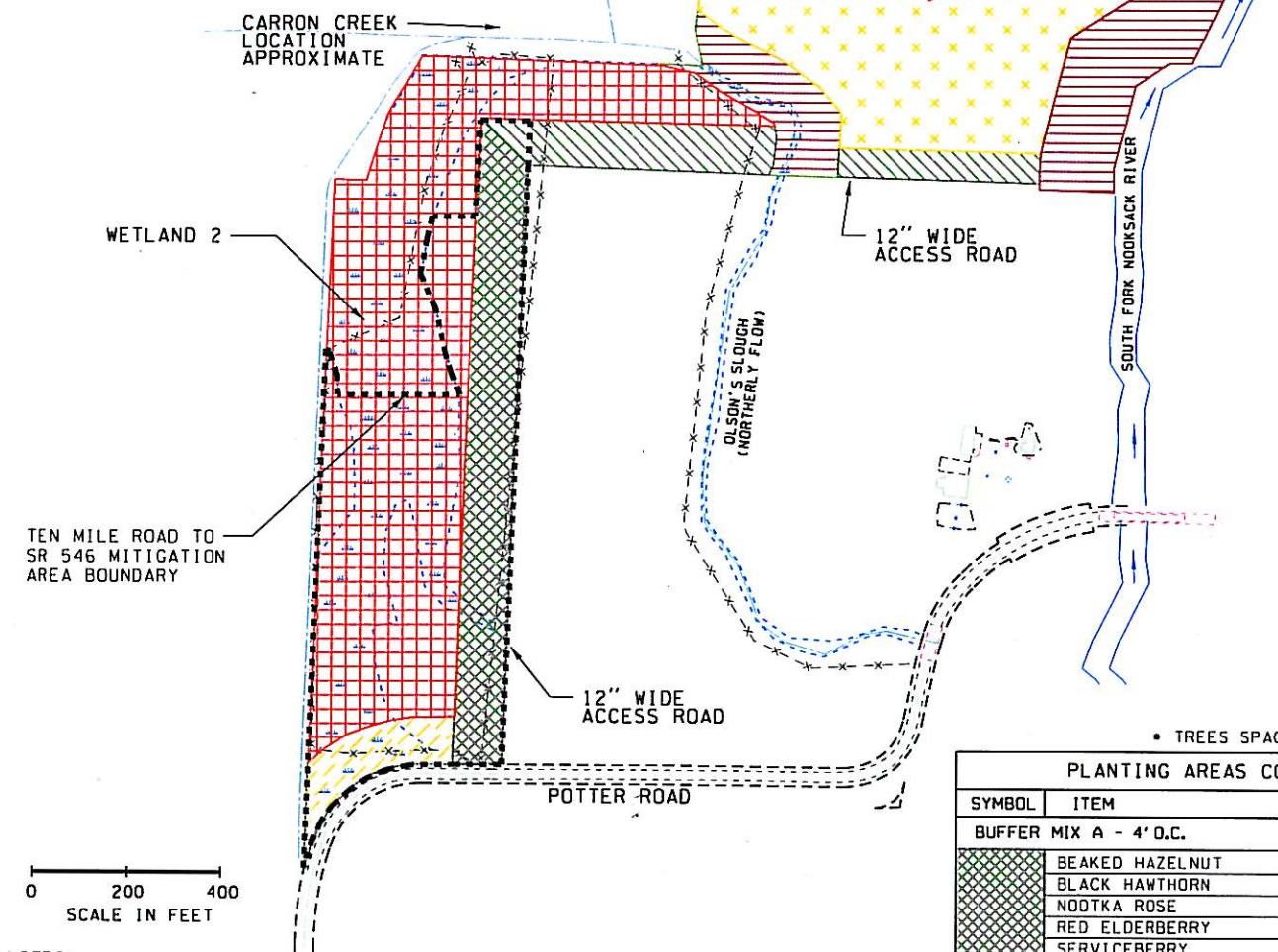
POTTER ROAD WETLAND MITIGATION  
SITE GRADING PLAN CROSS-SECTIONS:

NOTES:

1. THIS GRADING PLAN CROSS-SECTION SHEET WILL BE DESIGNED AND/OR REVISED BASED ON PIEZOMETER DATA THAT WSDOT IS CURRENTLY COLLECTING.DESIGNED AND/ORREVISED BASED ON

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.	REFERENCE: NWS-2007-470-SOD	 <b>Washington State</b> <b>Department of Transportation</b>
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN	APPLICANT: WSDOT	
LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546	COUNTY: WHATCOM	
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)	NEAR: BELLINGHAM	
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B	WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK	
	DATE: MARCH 30, 2007	SHEET: 36    OF: 42

# POTTER ROAD WETLAND MITIGATION SITE PLANTING PLAN:



• TREES SPACED MIN. 8' O.C.

## NOTES:

1. REMAINING WETLAND MITIGATION AREAS WILL BE USED BY THE HORTON TO TEN MILE PROJECT.
2. THIS PLANTING PLAN WILL BE DESIGNED AND/OR REVISED BASED ON PIEZOMETER DATA THAT WSDOT IS CURRENTLY COLLECTING.

## LEGEND

- X—X—X— EXISTING FENCE
- MITIGATION AREA
- EXISTING WETLAND
- EXISTING BUFFER
- TEN MILE ROAD TO SR 546 MITIGATION AREA

PLANTING AREAS		
SYMBOL	ITEM	PERCENTAGE
PFO - 4' O.C.		
★	BLACK COTTONWOOD •	5
★	RED ALDER •	5
★	SITKA SPRUCE •	7
★	WESTERN RED CEDAR •	7
★	BLACK TWINBERRY	10
★	CLUSTERED WILD ROSE	16
★	RED-OSIER DOGWOOD	20
★	SALMONBERRY	15
★	SITKA WILLOW	15
PSS - 4' O.C.		
■	BLACK COTTONWOOD •	2
■	BLACK HAWTHORN •	5
■	PAPER BIRCH •	5
■	BLACK TWINBERRY	15
■	CLUSTERED WILD ROSE	18
■	NINEBARK	5
■	RED-OSIER DOGWOOD	15
■	SALMONBERRY	10
■	SITKA WILLOW	15
■	SWAMP GOOSEBERRY	10

PLANTING AREAS CONT'D		
SYMBOL	ITEM	PERCENTAGE
BUFFER MIX A - 4' O.C.		
■	BEAKED HAZELNUT	15
■	BLACK HAWTHORN	15
■	NOOTKA ROSE	15
■	RED ELDERBERRY	5
■	SERVICEBERRY	10
■	SNOWBERRY	15
■	THIMBLEBERRY	10
■	VINE MAPLE	15
BUFFER MIX B - 4' O.C.		
■	BIGLEAF MAPLE •	5
■	DOUGLAS FIR •	5
■	GRAND FIR •	5
■	WESTERN HEMLOCK •	5
■	WESTERN RED CEDAR •	10
■	BEAKED HAZELNUT	5
■	BLACK HAWTHORN	5
■	NOOTKA ROSE	15
■	SERVICEBERRY	10
■	SNOWBERRY	15
■	THIMBLEBERRY	10
■	VINE MAPLE	10
BUFFER MIX C - 4' O.C.		
■	PACIFIC WILLOW •	5
■	SITKA SPRUCE •	5
■	WESTERN RED CEDAR •	10
■	CLUSTERED WILD ROSE	15
■	NINEBARK	10
■	RED-OSIER DOGWOOD	20
■	SALMONBERRY	20
■	SITKA WILLOW	15

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
 PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
 LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546  
 DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
 ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA  
 ATTACHMENT B

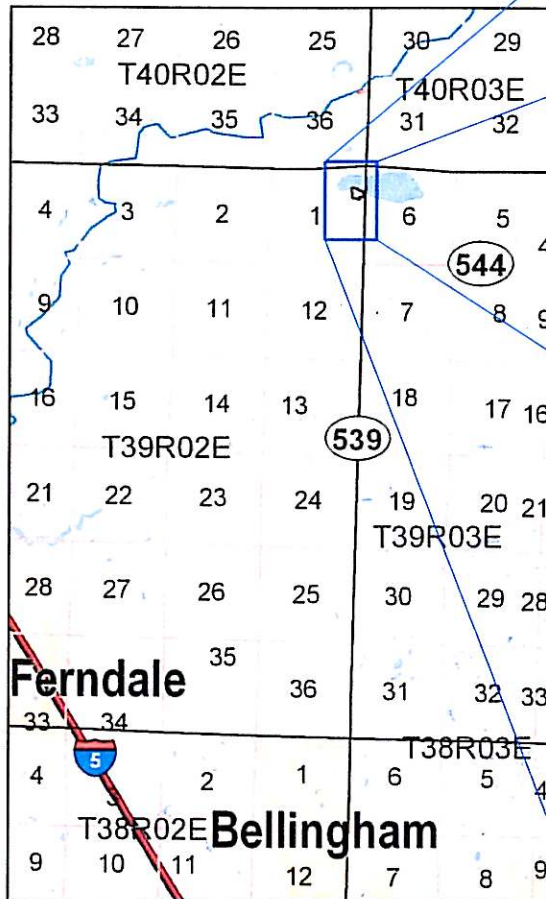
REFERENCE: NWS-2007-470-SOD  
 APPLICANT: WSDOT  
 COUNTY: WHATCOM  
 NEAR: BELLINGHAM  
 WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
 DATE: MARCH 30, 2007

  
**Washington State**  
**Department of Transportation**  
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NOT TO SCALE:

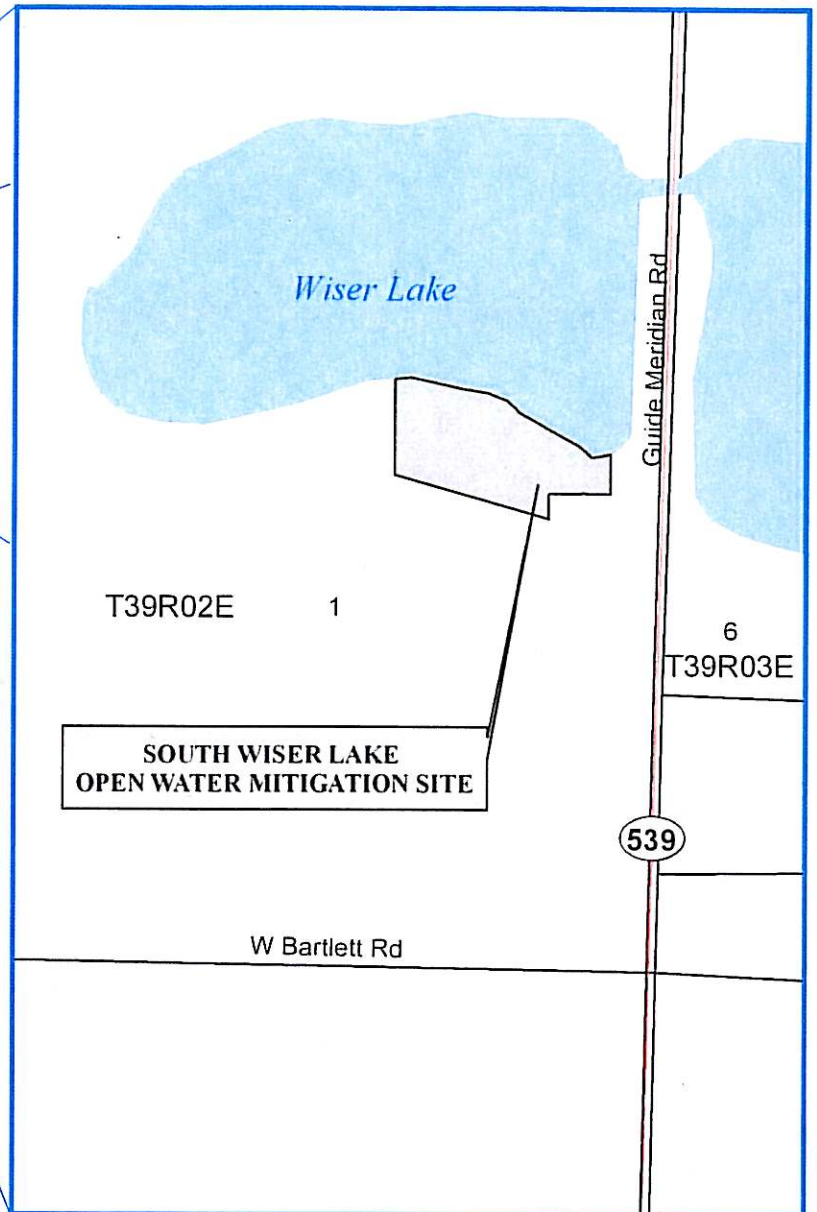


### LEGEND

- ROADS
- SECTION LINES
- SOUTH WISER LAKE OPEN WATER MITIGATION SITE

T.39N.,R.02E.,W.M.

(SECTION 01)



NOT TO SCALE:

VICINITY:  
SOUTH WISER LAKE OPEN WATER MITIGATION SITE

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION,  
AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE  
BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA  
ATTACHMENT B

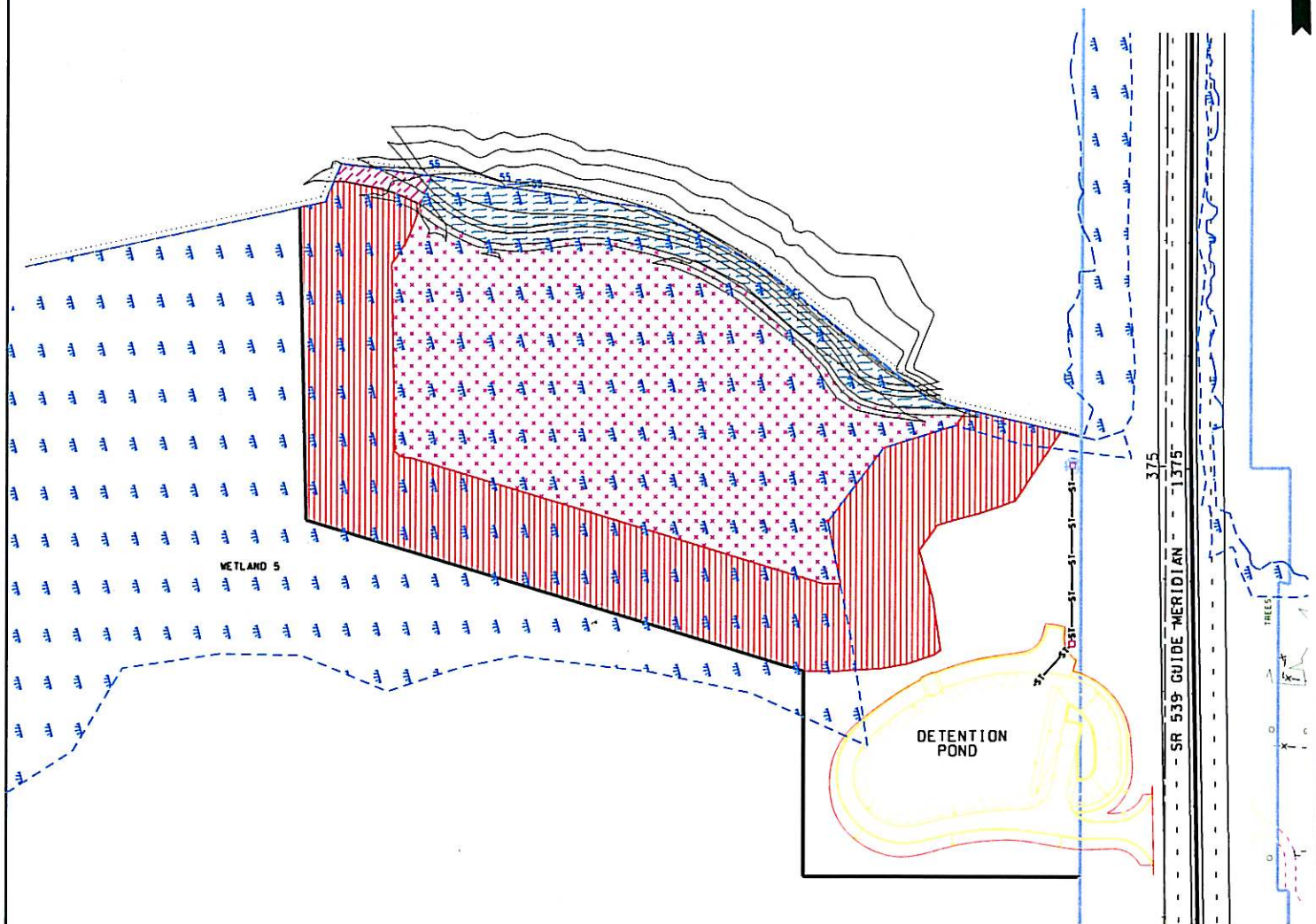
REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: BELLINGHAM  
WATER BODY: FOUR MILE CREEK, WISER LAKE,  
NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MARCH 30, 2007



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Department of Transportation

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# SOUTH WISER LAKE OPEN WATER MITIGATION SITE SCHEMATIC:



## LEGEND

- EXISTING WETLAND
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- NEW CONTOUR

0 75 150  
SCALE IN FEET

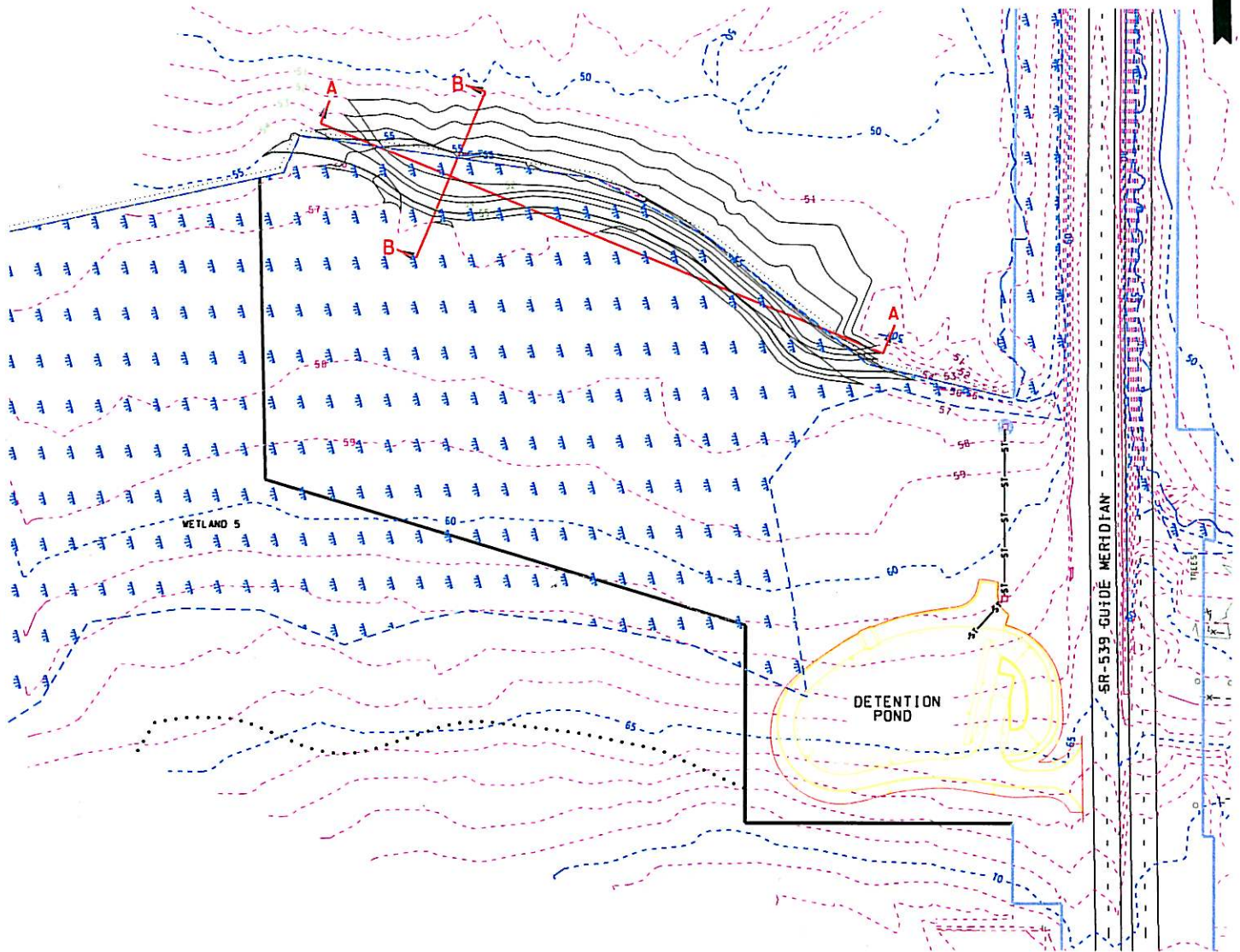
PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: BELLINGHAM  
WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MARCH 30, 2007

	ENHANCEMENT
BUFFER PALUSTRINE SCRUB-SHRUB (PSS)	
	1.90 ACRES
WETLAND PALUSTRINE SCRUB-SHRUB (PSS)	
	2.15 ACRES
WETLAND LACUSTRINE EMERGENT / AQUATIC BED (LEM/LAB)	
	0.39 ACRE
BUFFER LACUSTRINE EMERGENT / AQUATIC BED (LEM/LAB)	
	0.03 ACRE



# SOUTH WISER LAKE OPEN WATER MITIGATION SITE GRADING PLAN:



## LEGEND

	EXISTING WETLAND
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	NEW CONTOUR

0 75 150  
SCALE IN FEET

• SEE SHEET 41 FOR CROSS-SECTIONS.

## NOTES:

1. THIS GRADING PLAN WILL BE DESIGNED AND/OR REVISED BASED ON PIEZOMETER DATA THAT WSDOT IS CURRENTLY COLLECTING.

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN  
LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546  
DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)  
ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA ATTACHMENT B

REFERENCE: NWS-2007-470-SOD  
APPLICANT: WSDOT  
COUNTY: WHATCOM  
NEAR: BELLINGHAM  
WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK  
DATE: MARCH 30, 2007

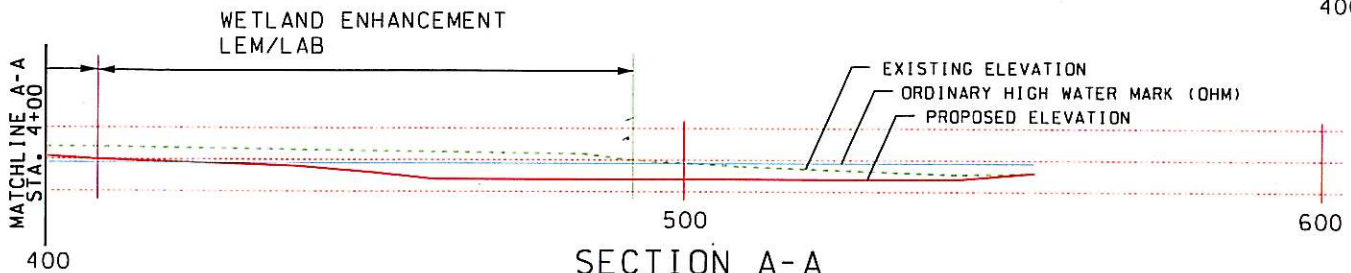
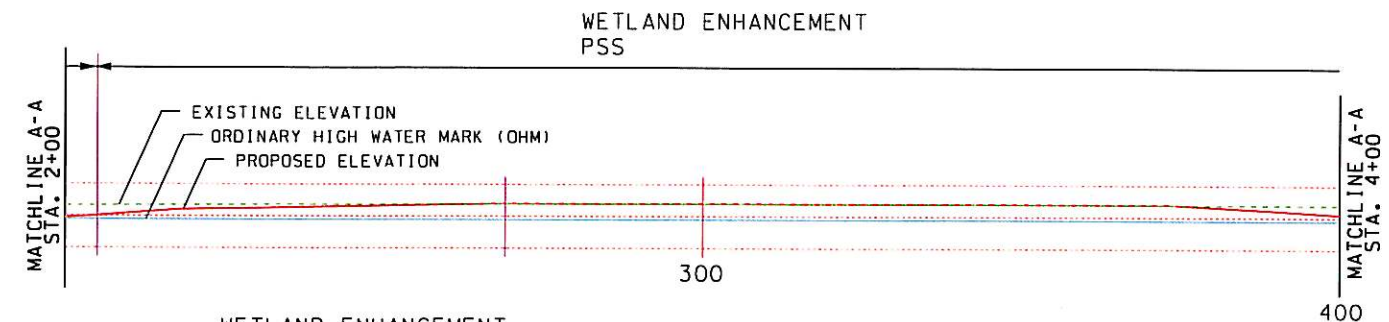
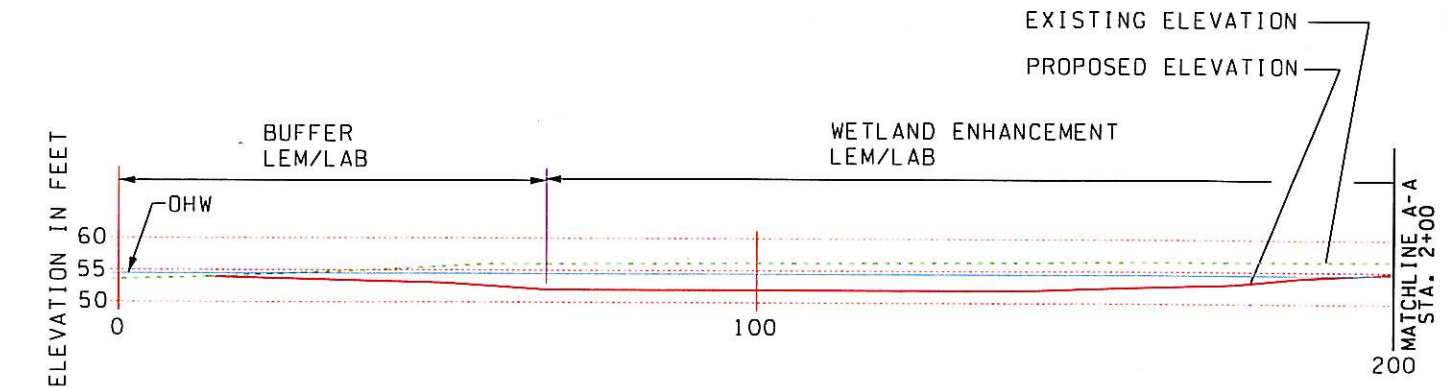


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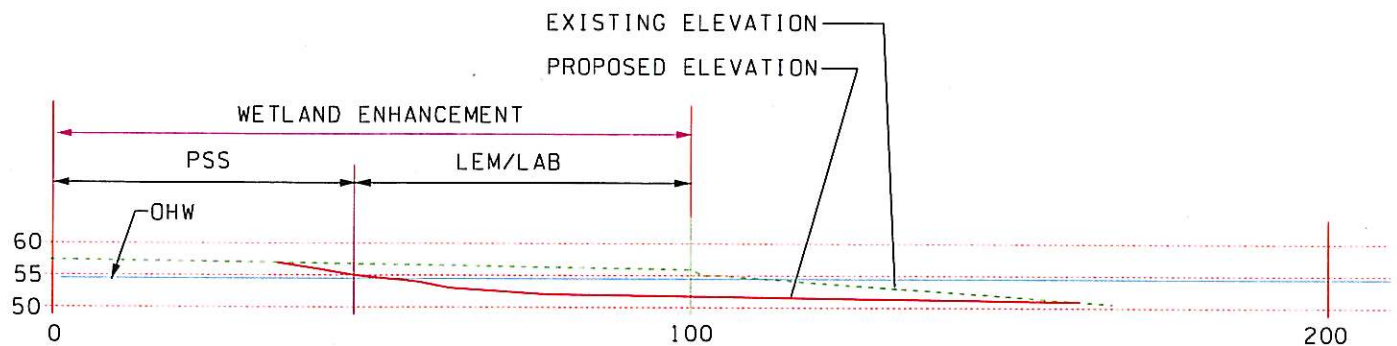
SHEET: 40 OF: 42

# SOUTH WISER LAKE OPEN WATER MITIGATION SITE CROSS-SECTIONS:

NO VERTICAL EXAGGERATION  
ELEVATION IN FEET



SECTION A-A



SECTION B-B

## NOTES:

- THIS GRADING PLAN CROSS-SECTION SHEET WILL BE DESIGNED AND/OR REVISED BASED ON PIEZOMETER DATA THAT WSDOT IS CURRENTLY COLLECTING. DESIGNED AND/OR REVISED BASED ON

• SEE SHEET 40 FOR PLAN VIEW

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.

PROPOSED: WIDEN FROM TWO TO FOUR LANES WITH CABLE BARRIER MEDIAN

LOCATION: GUIDE MERIDIAN SR 539 TEN MILE RD. TO SR 546

DATUM: N.A.D. 83191 (HORIZ) N.A.V.D. 88 (VERT)

ADJACENT PROPERTY OWNERS: SEE LIST PROVIDED IN JARPA

ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: BELLINGHAM

WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MARCH 30, 2007

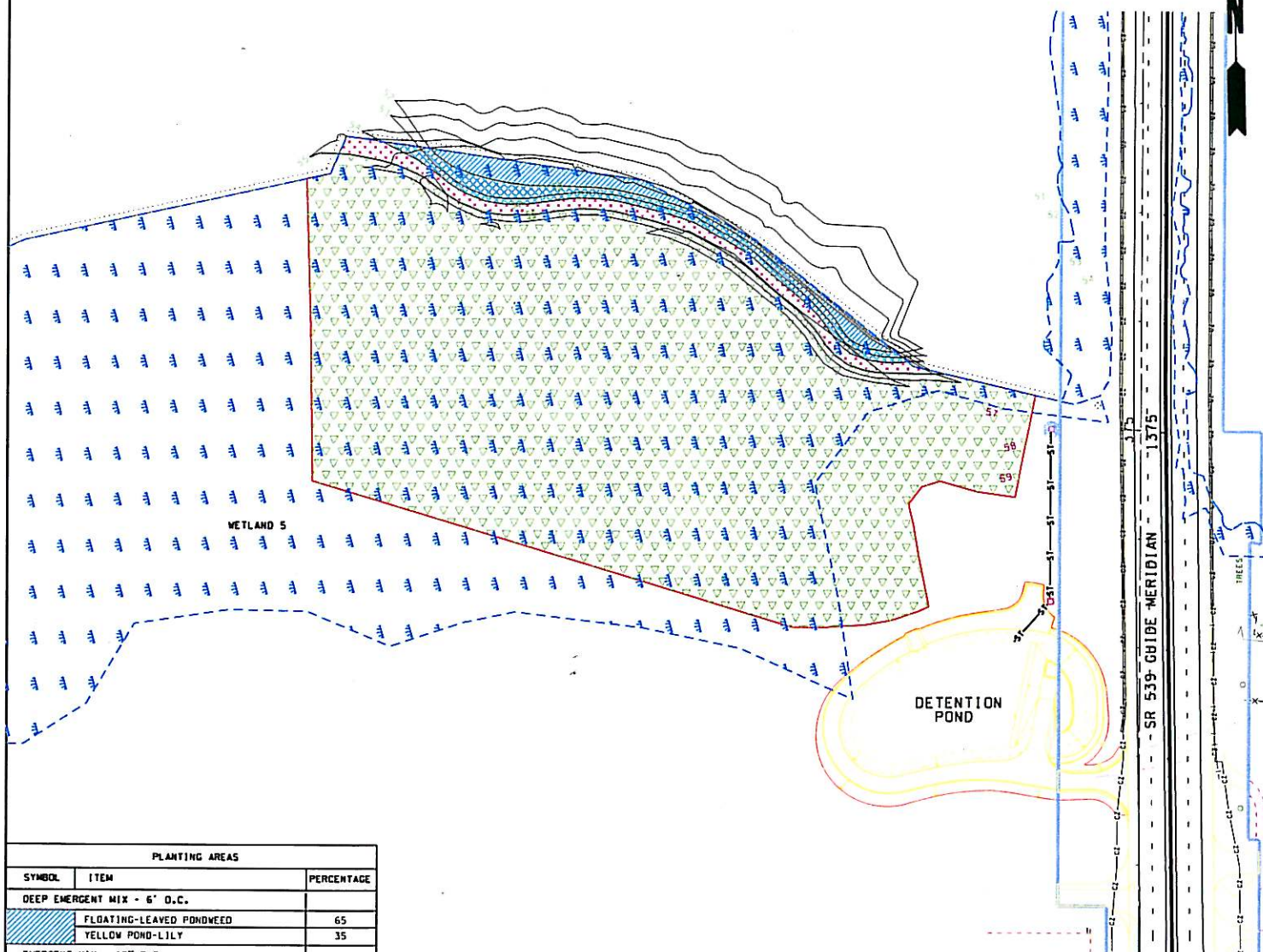


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# SOUTH WISER LAKE OPEN WATER MITIGATION SITE PLANTING PLAN:



PLANTING AREAS		
SYMBOL	ITEM	PERCENTAGE
DEEP EMERGENT MIX - 6' O.C.		
	FLOATING-LEAVED PONDWEED	65
	YELLOW POND-LILY	35
EMERGENT MIX - 18" O.C.		
	HARDSTEM BULRUSH	30
	NARROW-LEAVED BURREED	30
	SMALL-FRUITED BULRUSH	20
	SOFTSTEM BULRUSH	20
SHALLOW EMERGENT MIX - 18" O.C.		
	BRISTLY SEDGE	10
	BROADLEAF ARROWHEAD	15
	BROADLEAF WATER-PLANTAIN	15
	SLOUGH SEDGE	10
	SMALL-FRUITED BULRUSH	10
	SOFTSTEM BULRUSH	15
	WATER PARSLEY	15
	WESTERN MANNAGRASS	10
BUFFER MIX - 4' O.C.		
	BLACK TWINBERRY	15
	PACIFIC NINEBARK	10
	PIPER WILLOW	20
	RED-OSIER DOGWOOD	20
	SALMONBERRY	15
	SITKA WILLOW	20

## NOTES:

1. THIS PLANTING PLAN WILL BE DESIGNED AND/OR REVISED BASED ON PIEZOMETER DATA THAT WSDOT IS CURRENTLY COLLECTING.

0 75 150  
SCALE IN FEET

## LEGEND

	EXISTING WETLAND
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	NEW CONTOUR

PURPOSE: INCREASE TRAFFIC CAPACITY, REDUCE CONGESTION, AND IMPROVE SAFETY.  
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ATTACHMENT B

REFERENCE: NWS-2007-470-SOD

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: BELLINGHAM

WATER BODY: FOUR MILE CREEK, WISER LAKE, NOOKSACK RIVER, FISHTRAP CREEK, DUFFNER CREEK

DATE: MARCH 30, 2007



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